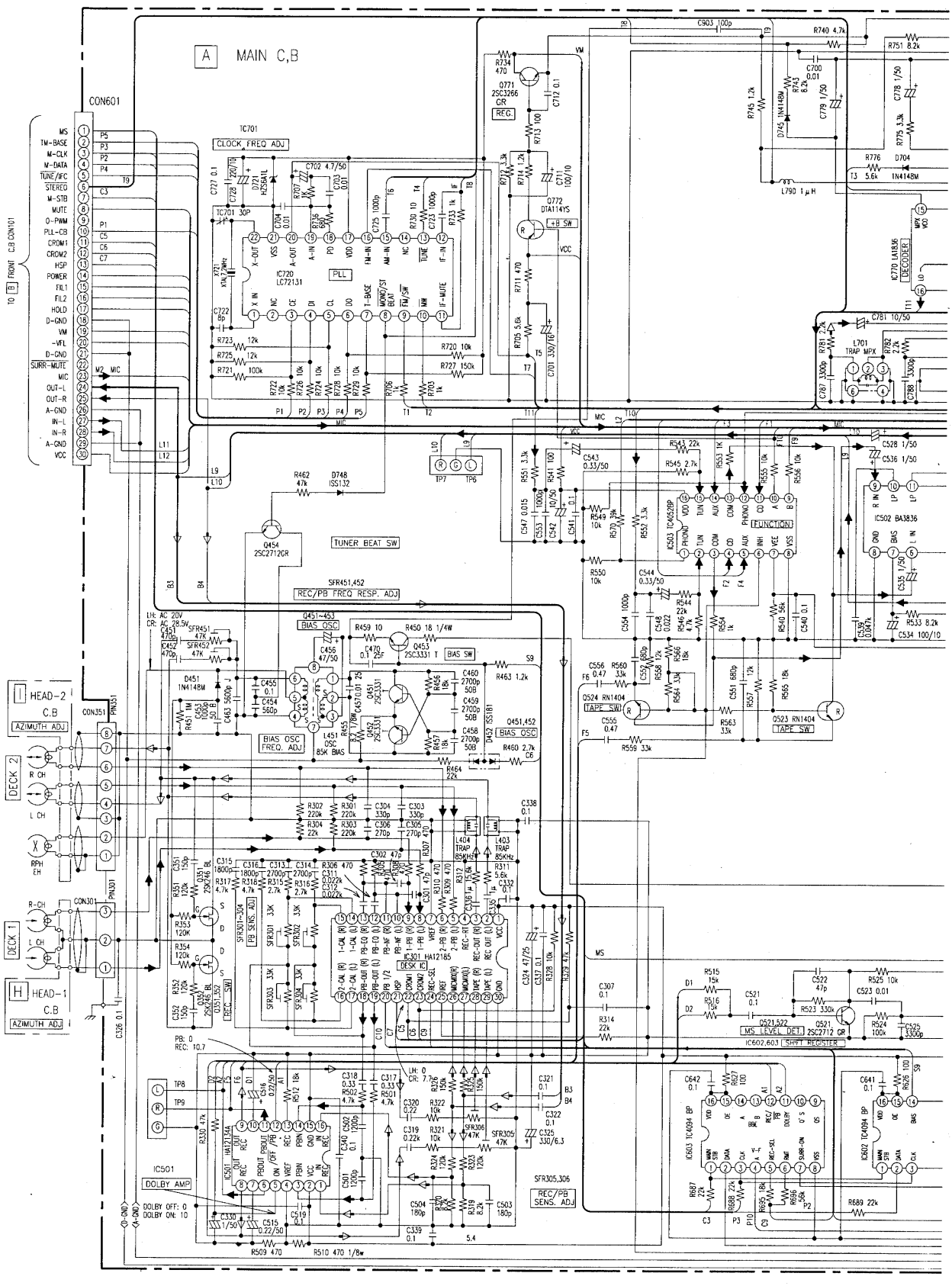
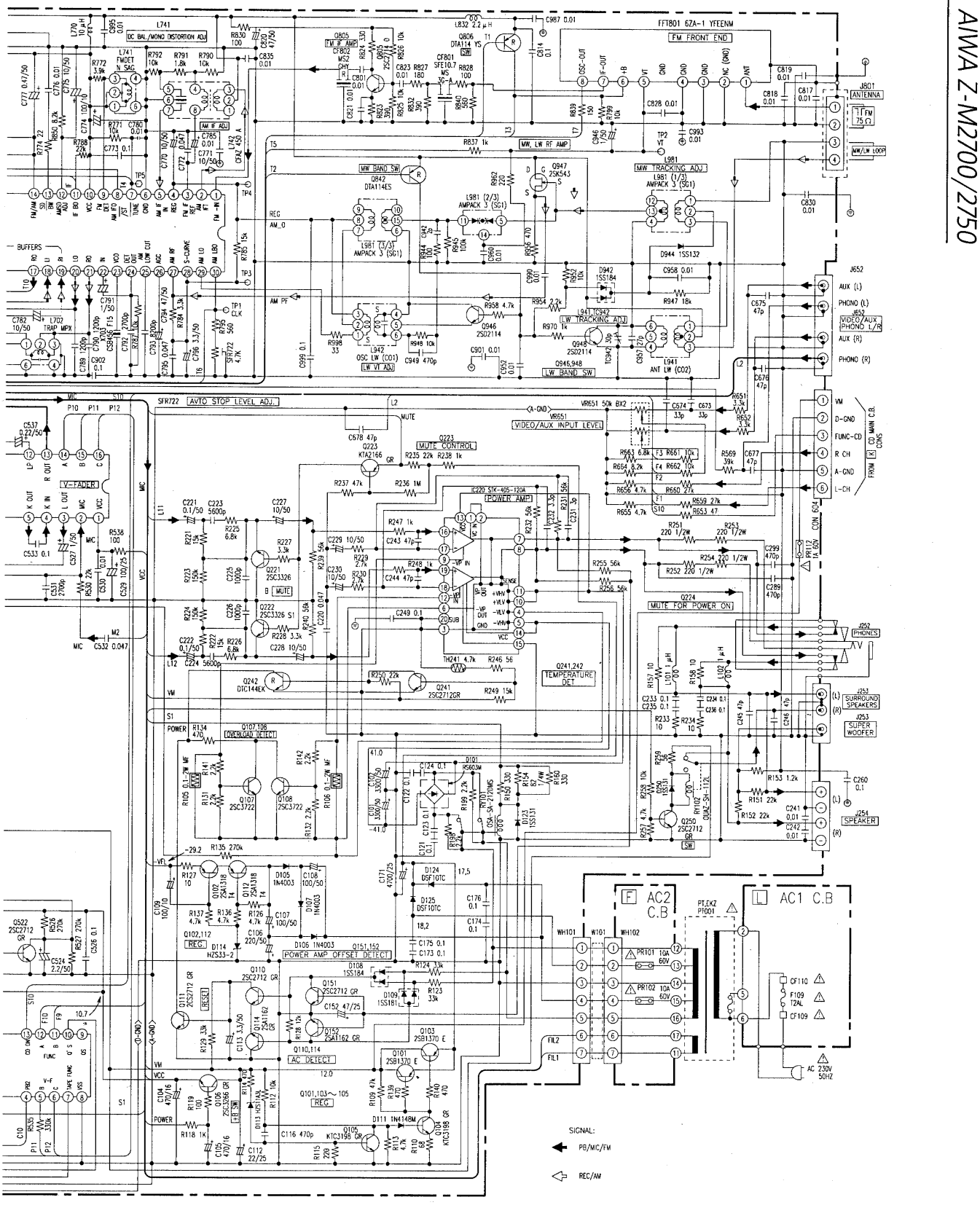
AIWA

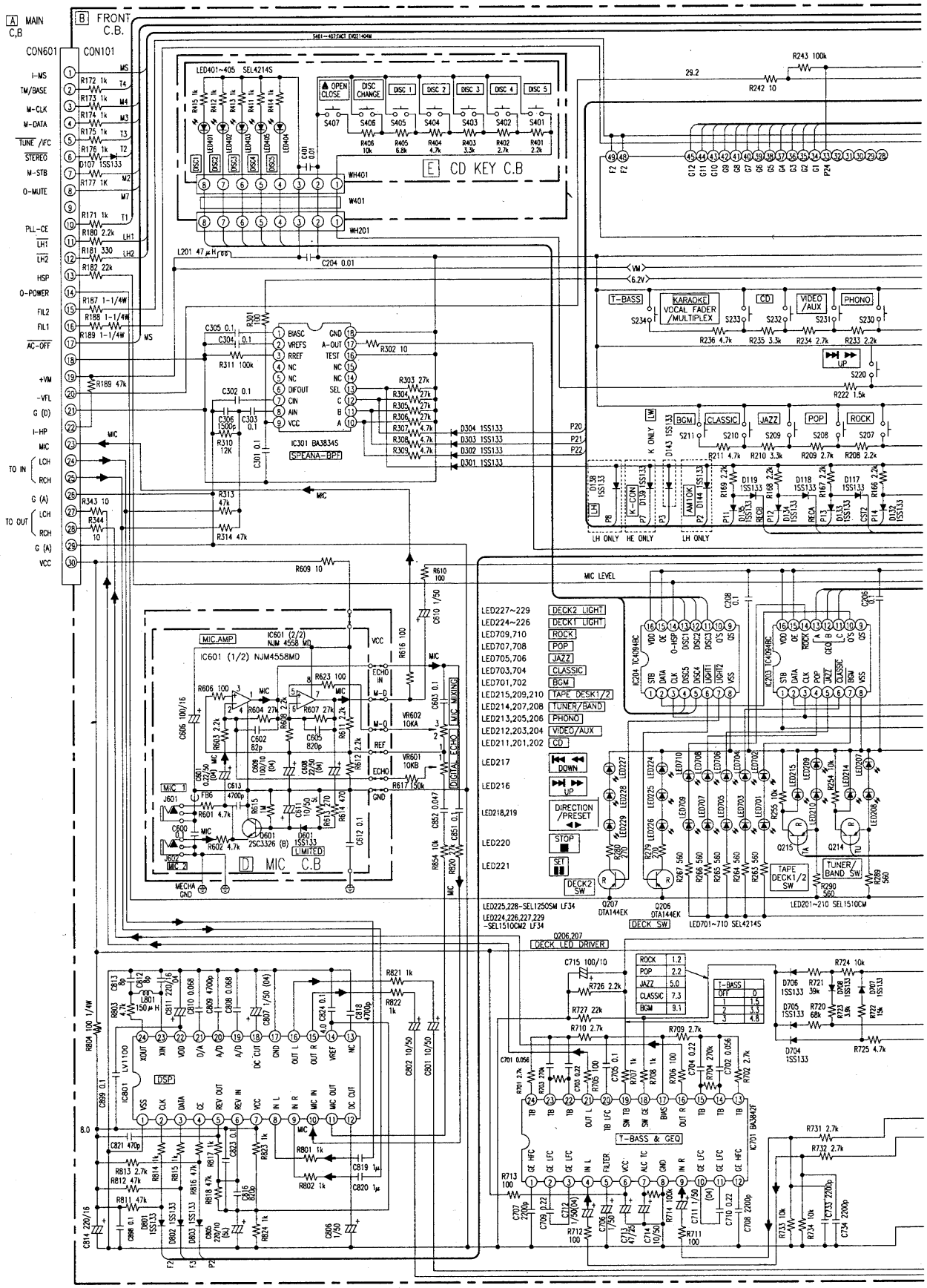
Z-VM27

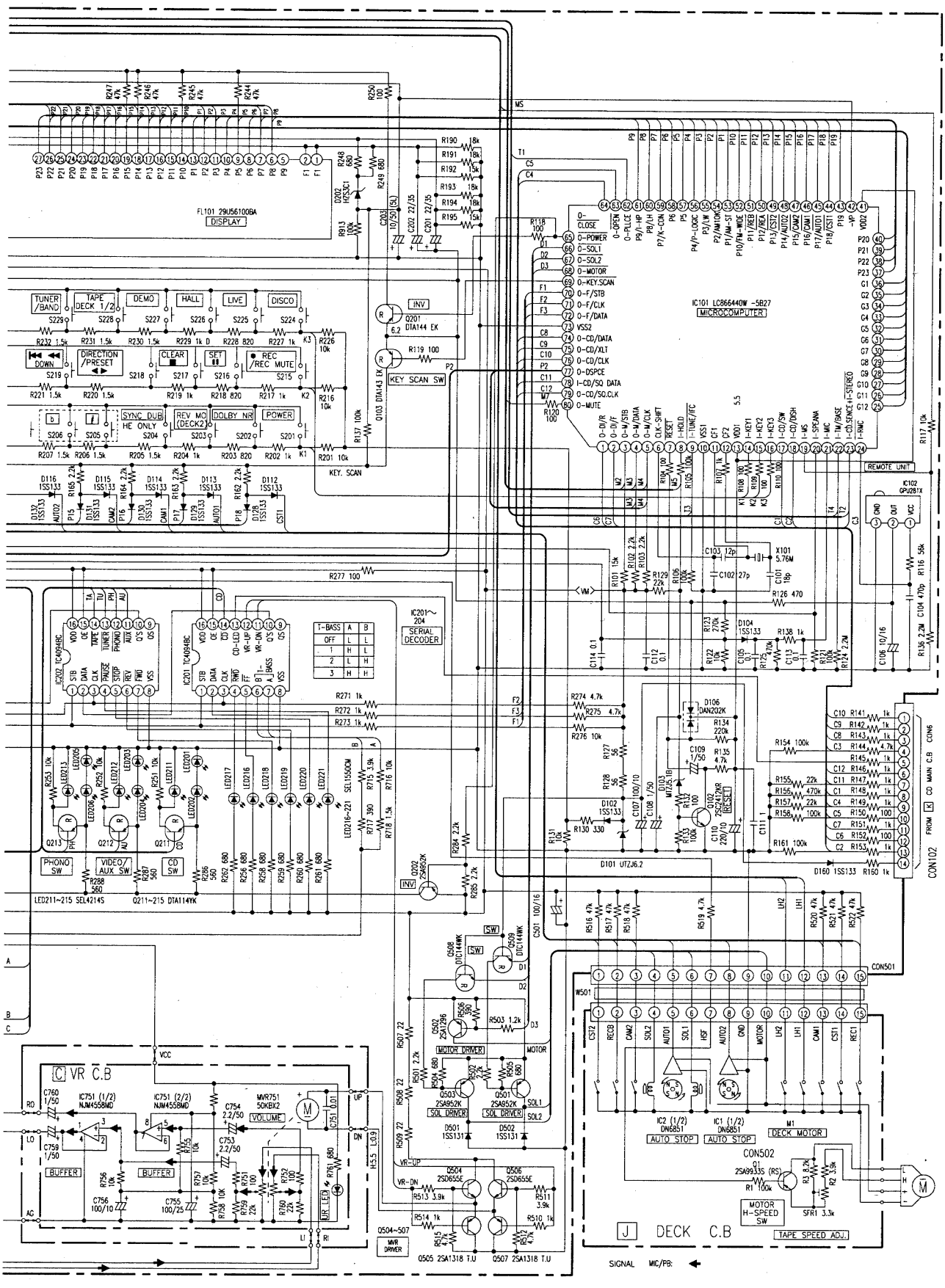
MODEL

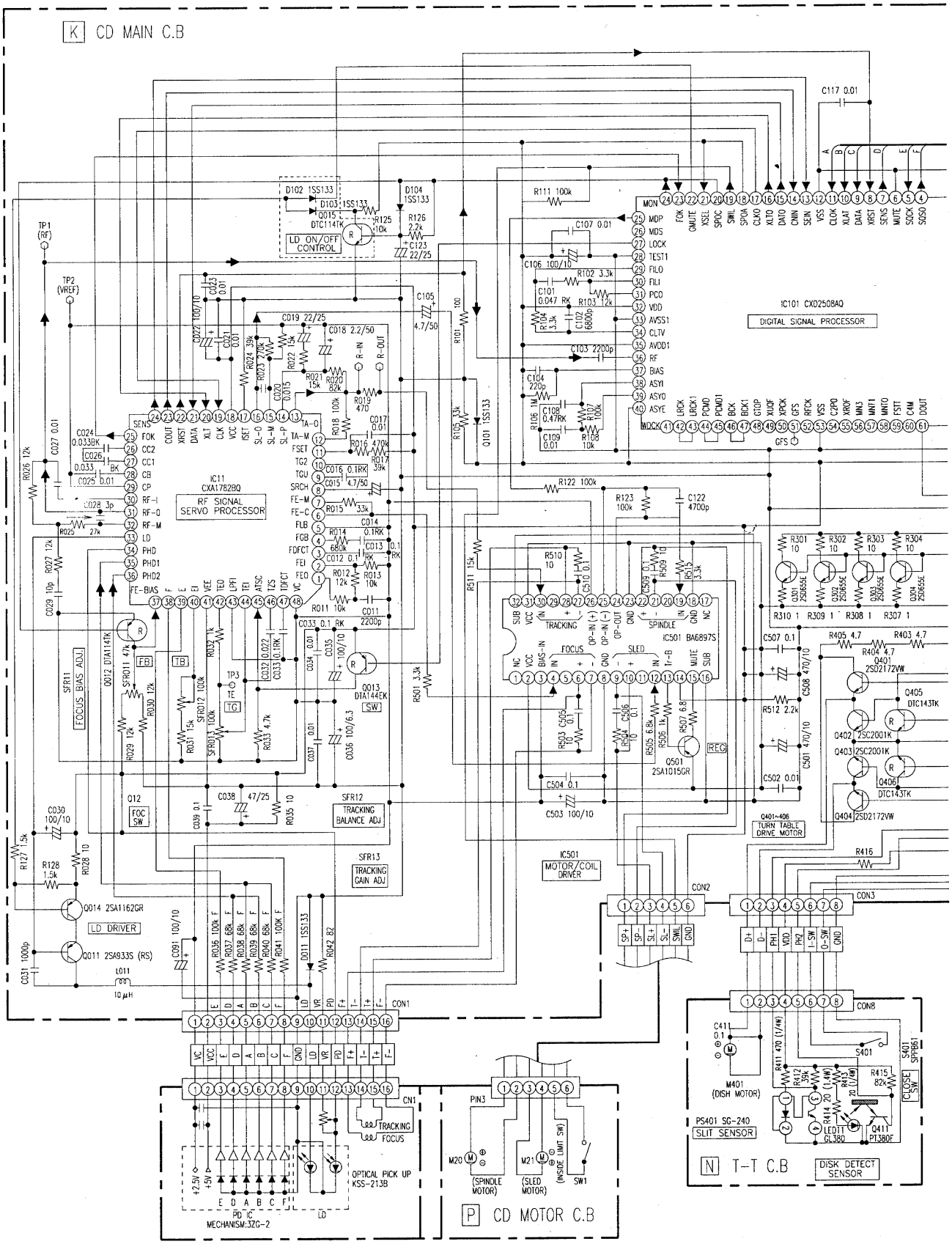
SERVICE MANUAL

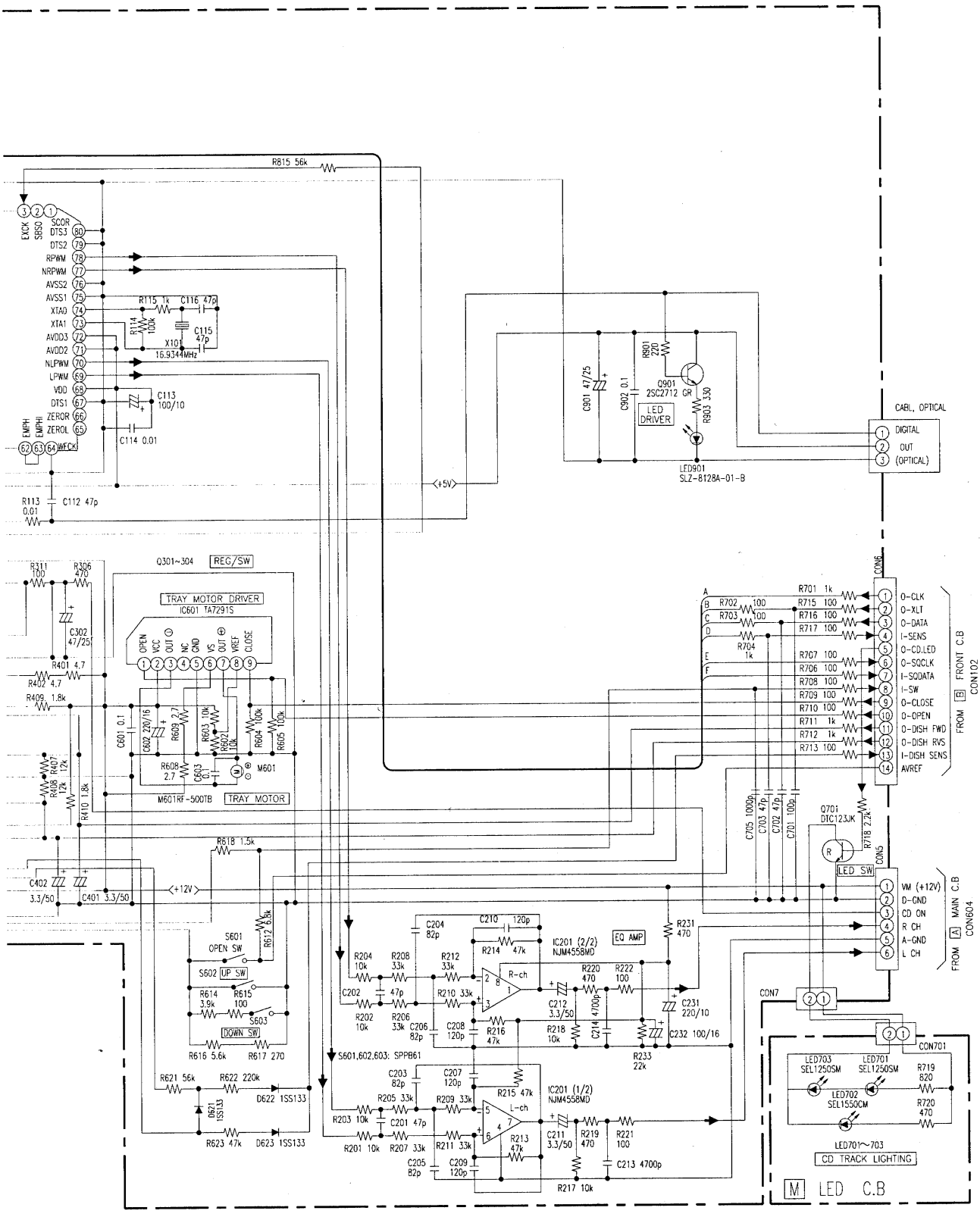

A MAIN C,B
CON601
MS
TM-BASE
M-CLK
M-DATA
TUNE/AFC
STEREO
M-STB
MUTE
O-PWM
PLL-CB
CROM1
CROM2
HSP
POWER
FIL1
FIL2
HOLD
D-GND
VM
-VFL
D-GND
SURR-MUTE
MIC
OUT-L
OUT-R
A-GND
IN-L
IN-R
A-GND
VCC
TO B FRONT C,B CON101
IC701
CLOCK FREQ ADJ
IC720 LC72131
PLL
Q771 2SC3266 GR
REG.
Q772 DTA114YS
+B SW
IC770 LA1836
DECODER
L701 TRAP MPX
IC502 BA3836
FUNCTION
IC503 TC40526P
TUNER BEAT SW
Q454 2SC2712GR
SFR451,452
REC/PB FREQ RESP. ADJ
Q451~453
BIAS OSC
Q453 2SC3331 T
BIAS SW
Q451,452
BIAS OSC
BIAS OSC FREQ. ADJ
IC451 OSC 85K BIAS
HEAD-2 C.B
AZIMUTH ADJ
HEAD-1 C.B
AZIMUTH ADJ
DECK 2
DECK 1
R CH
L CH
CON351
CON301
PIN351
PIN301
IC301 HA12185
DESK IC
PB SENS. ADJ
REC SENS. ADJ
SFR301~304
SFR305,306
REC/PB SENS. ADJ
IC501
DOLBY AMP
DOLBY OFF: 0
DOLBY ON: 10
IC602,603 SHIFT REGISTER
MS LEVEL DET.
Q521,522 2SC2712 GR
TAPE SW
Q524 RN1404
Q523 RN1404
TP6
TP7
TP8
TP9
PB: 0
REC: 10.7
LH: 0
CR: 7.7

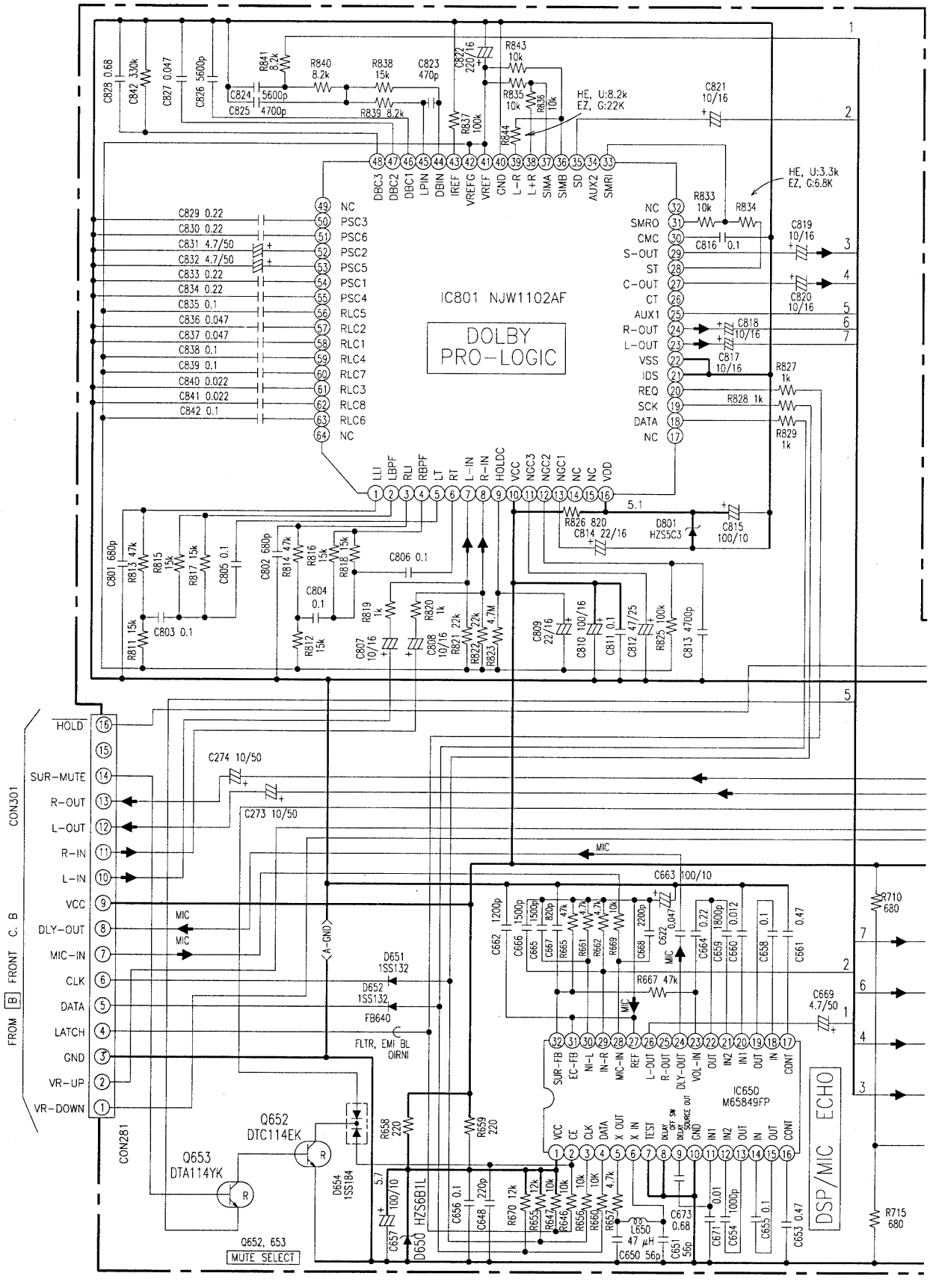

FFT801 6ZA-1 YFEENM
FM FRONT END
IDC BAL/MONO DISTORTION ADJ
AM IF ADJ
MW BAND SW
MW, LW RF AMP
MW TRACKING ADJ
LW TRACKING ADJ
LW VT ADJ
LW BAND SW
OSC LW (C01)
ANT LW (C02)
BUFFERS
AVTO STOP LEVEL ADJ.
MUTE CONTROL
VIDEO/AUX INPUT LEVEL
V-FADER
POWER AMP
MUTE FOR POWER ON
TEMPERATURE DET
OVERLOAD DETECT
POWER AMP OFFSET DETECT
AC DETECT
REG
J652
AUX (L)
PHONO (L)
VIDEO/AUX PHONO L/R
AUX (R)
PHONO (R)
J252
PHONES
J253
SURROUND SPEAKERS
SUPER WOOFER
J254
SPEAKER
J801
ANTENNA
FM 75Ω
MW/LW LOOP
F AC2 C.B
L AC1 C.B
PT,EKZ PT001
CF110
F109 T2AL
CF109
AC 230V 50HZ
SIGNAL:
PB/MIC/FM
REC/AM

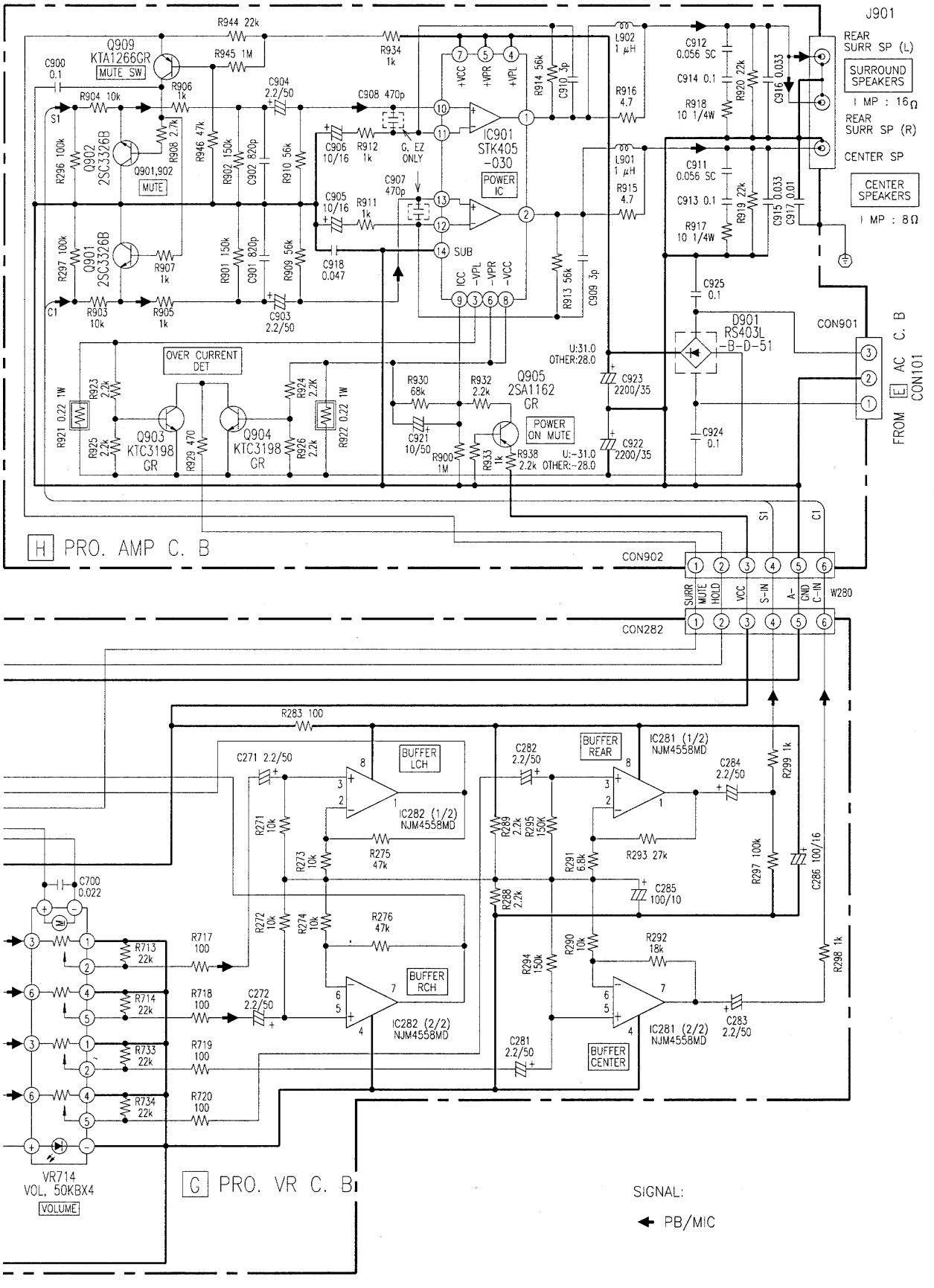

TO A MAIN C.B
B FRONT C.B.
CON601
CON101
E CD KEY C.B
D MIC C.B
IC301 BA3834S
SPEANA-BPF
IC601 (1/2) NJM4558MD
MIC AMP
DSP
IC801 LV1100
IC701 BA3842F
T-BASS & GEQ
DECK LED DRIVER
DECK SW
TAPE DECK1/2 SW
TUNER/BAND SW
DIRECTION /PRESET
T-BASS
KARAOKE VOCAL FADER /MULTIPLEX
VIDEO /AUX
PHONO
CD
BGM
CLASSIC
JAZZ
POP
ROCK
DISC 1
DISC 2
DISC 3
DISC 4
DISC 5
DISC CHANGE
OPEN CLOSE
MIC LEVEL
DIGITAL ECHO
MIC MIXING
LIMITED
LH ONLY
HE ONLY
K ONLY

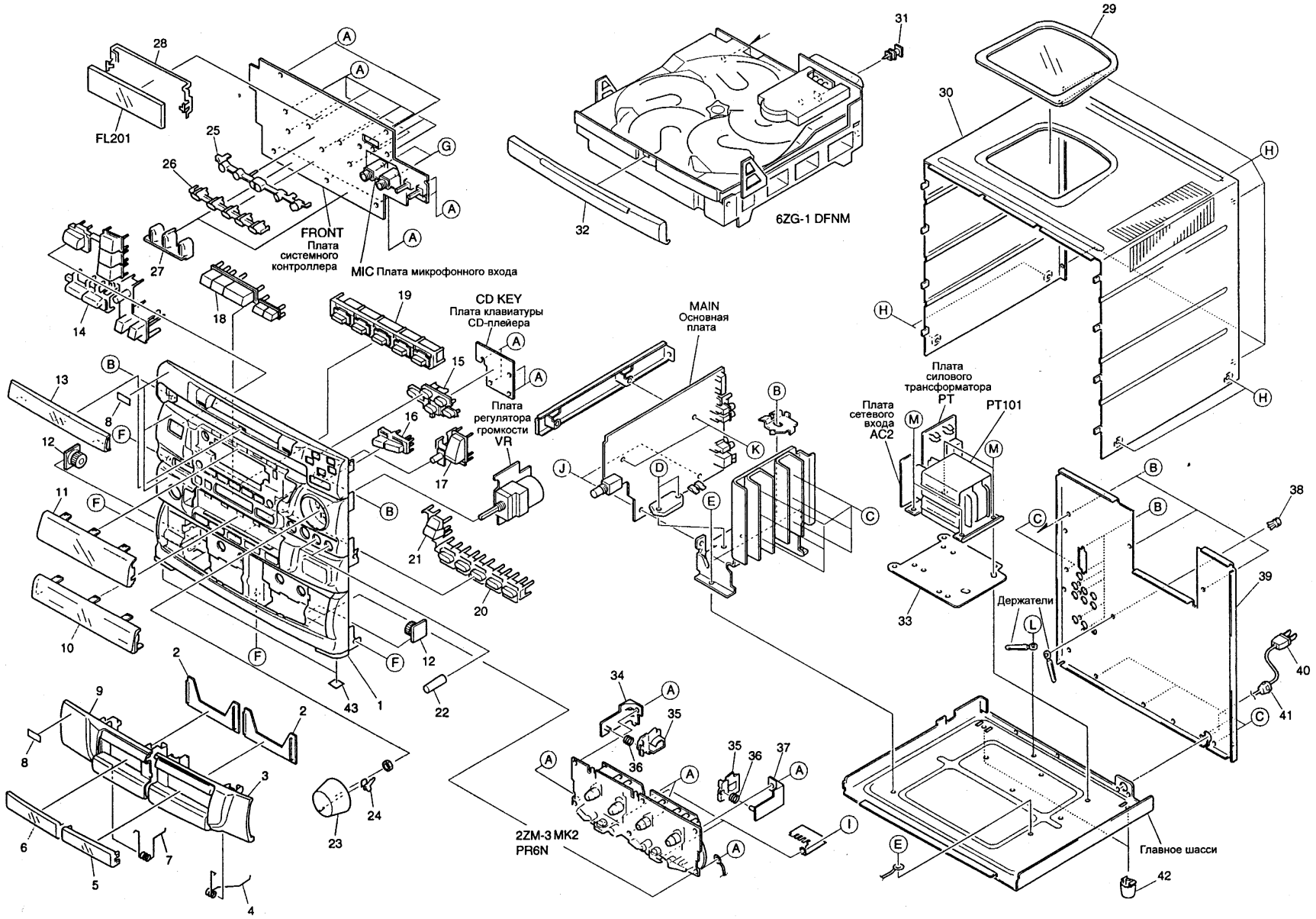

FL101 29U56100BA
DISPLAY
IC101 LC866440W -5B27
MICROCOMPUTER
KEY SCAN SW
KEY. SCAN
REMOTE UNIT
IC102 GPU281X
IC201~204 SERIAL DECODER
IC202 TC4094BC
IC201 TC4094BC
CON102 FROM CD MAIN C.B CON6
CON501
CON502
W501
PHONO SW
VIDEO/ AUX SW
CD SW
LED211~215 SEL4214S
Q211~215 DTA114YK
C VR C.B
J DECK C.B
VOLUME
MOTOR DRIVER
SOL DRIVER
AUTO STOP
DECK MOTOR
MOTOR H-SPEED SW
TAPE SPEED ADJ.
BUFFER
VR-UP
VR-DN
SIGNAL MIC/PB:

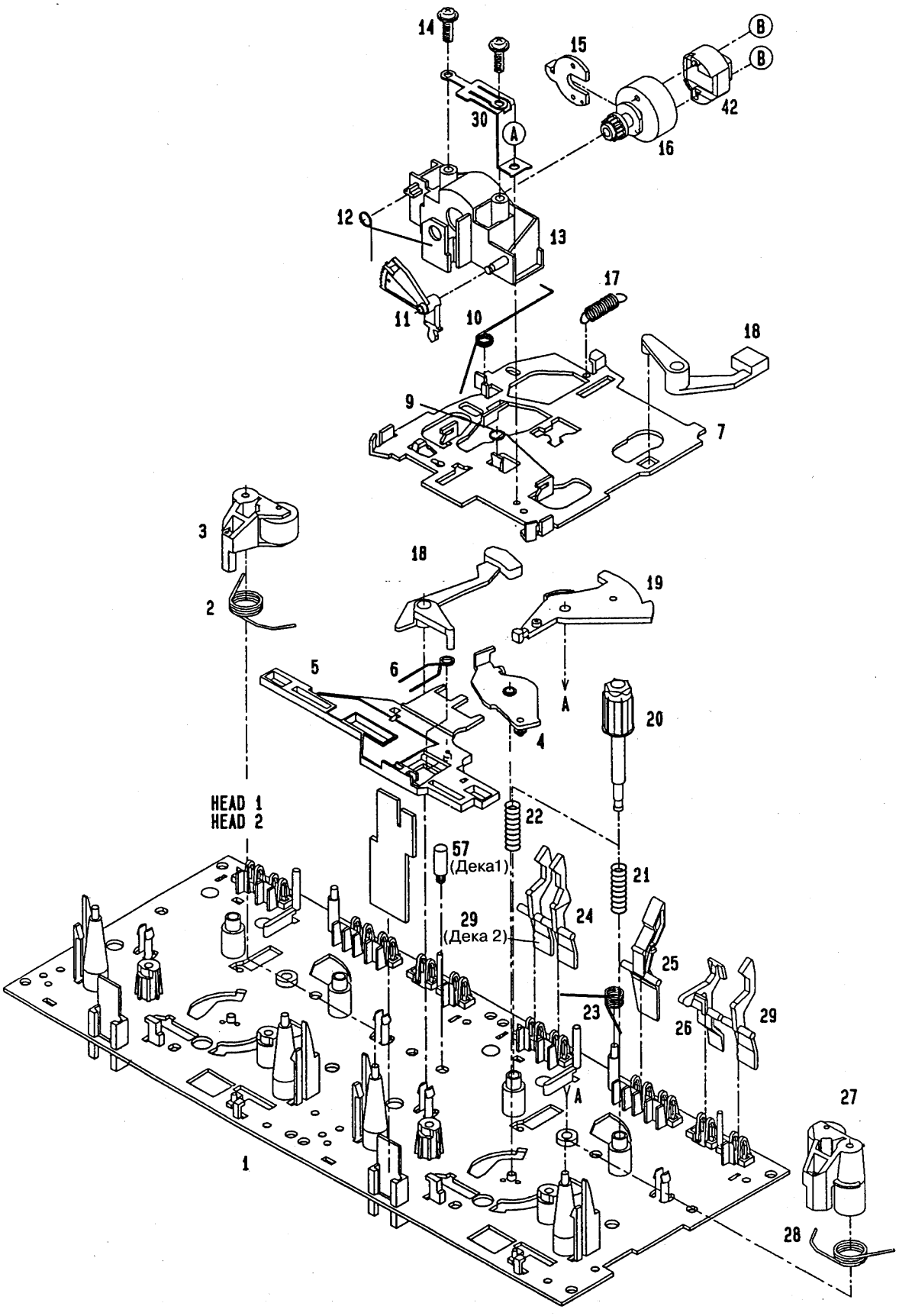

K CD MAIN C.B
IC11 CXA1782BQ
RF SIGNAL SERVO PROCESSOR
IC101 CXD2508AQ
DIGITAL SIGNAL PROCESSOR
IC501 BA6897S
MOTOR/COIL DRIVER
LD ON/OFF CONTROL
LD DRIVER
FOCUS BIAS ADJ
FOC SW
TRACKING BALANCE ADJ
TRACKING GAIN ADJ
TURN TABLE DRIVE MOTOR
OPTICAL PICK UP KSS-213B
PD IC MECHANISM:3ZG-2
P CD MOTOR C.B
N T-T C.B
DISK DETECT SENSOR
PS401 SG-240 SLIT SENSOR
M401 (DISH MOTOR)
CLOSE SW
CON1
CON2
CON3
CON8

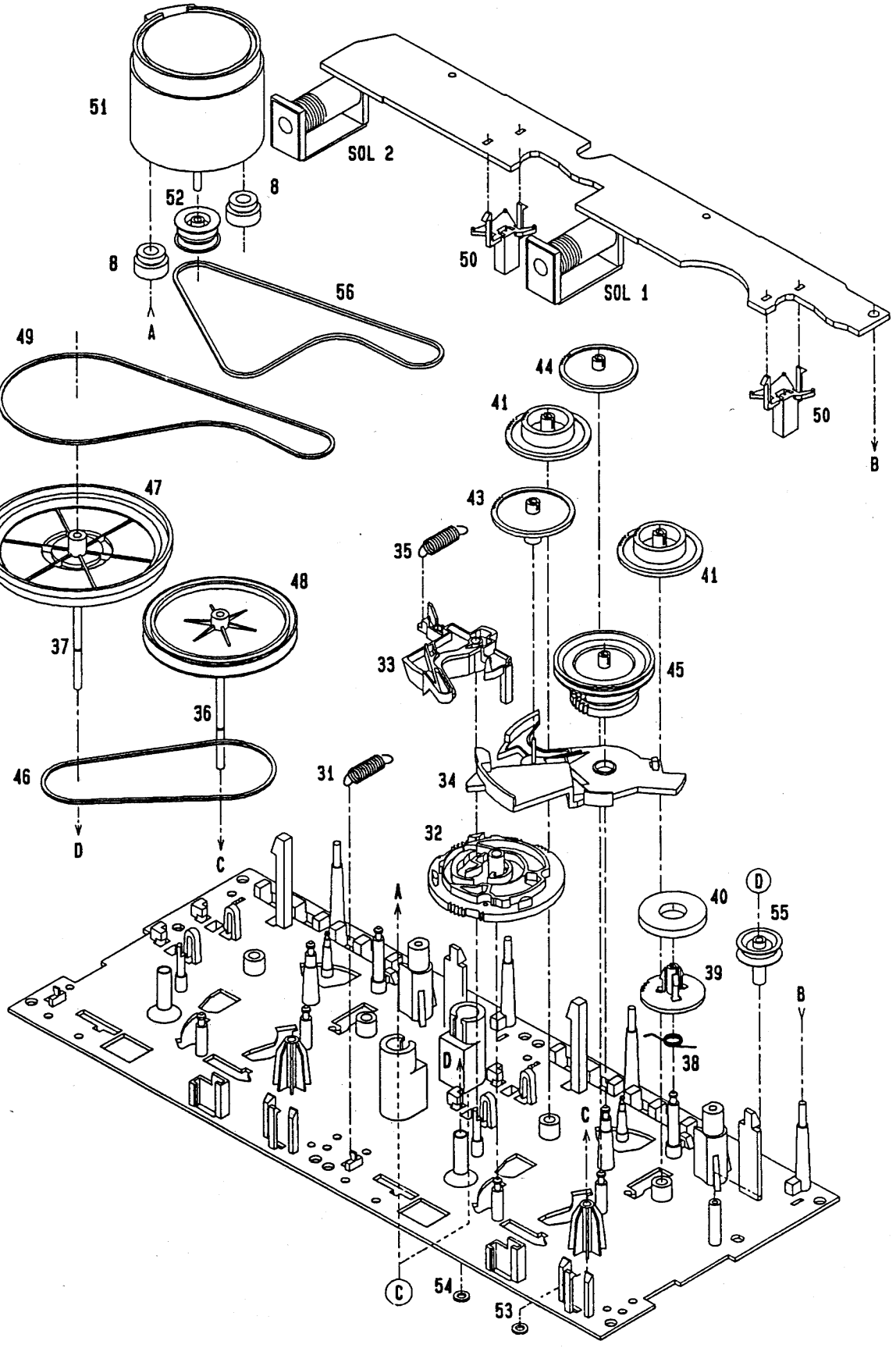

R815 56k
EXCK
SBSO
SCOR
DTS3
DTS2
RPWM
NRPWM
AVSS2
AVSS1
XTAO
XTA1
AVDD3
AVDD2
NLPWM
LPWM
VDD
DTS1
ZEROR
ZEROL
EMPH
EMPH
WFCK
R115 1k
C116 47p
R114 100k
C115 47p
X101 16.9344MHz
C113 100/10
C114 0.01
R113 0.01
C112 47p
+5V
C901 47/25
C902 0.1
R901 220
Q901 2SC2712 GR
LED DRIVER
R903 330
LED901 SLZ-8128A-01-B
CABL, OPTICAL
DIGITAL OUT (OPTICAL)
Q301~304
REG/SW
TRAY MOTOR DRIVER
IC601 TA7291S
OPEN
VCC
OUT
NC
GND
VS
OUT
VREF
CLOSE
R311 100
R306 470
C302 47/25
R401 4.7
R402 4.7
R409 1.8k
C601 0.1
C602 220/16
R609 2.7
R603 10k
R602 10k
R604 100k
R605 100k
R608 2.7
C603 0.1
M601
M601RF-500TB
TRAY MOTOR
R407 12k
R408 12k
R410 1.8k
R618 1.5k
C402 3.3/50
C401 3.3/50
+12V
S601 OPEN SW
S602 UP SW
S603
DOWN SW
R612 3.3k
R614 3.9k
R615 100
R616 5.6k
R617 270
R621 56k
R622 220k
D622 1SS133
D621 1SS133
R623 47k
D623 1SS133
S601,602,603: SPPB61
C204 82p
C210 120p
R214 47k
IC201 (2/2) NJM4558MD
EQ AMP
R231 470
R204 10k
R208 33k
R212 33k
R220 470
R222 100
C202 47p
R210 33k
R-ch
C212 3.3/50
C231 220/10
R202 10k
R206 33k
C206 82p
C208 120p
R216 47k
C214 4700p
R218 10k
C232 100/16
R233 22k
C203 82p
C207 120p
R215 47k
IC201 (1/2) NJM4558MD
R205 33k
R209 33k
L-ch
R203 10k
C201 47p
R211 33k
C211 3.3/50
R219 470
R221 100
R201 10k
R207 33k
R213 47k
C205 82p
C209 120p
C213 4700p
R217 10k
CON6
R701 1k
R702 100
R715 100
R703 100
R716 100
R717 100
R704 1k
R707 100
R706 100
R708 100
R709 100
R710 100
R711 1k
R712 1k
R713 100
O-CLK
O-XLT
O-DATA
I-SENS
O-CD.LED
O-SQCLK
I-SQDATA
I-SW
O-CLOSE
O-OPEN
O-DISH FWD
O-DISH RVS
I-DISH SENS
AVREF
FROM B FRONT C.B CON102
C705 1000p
C703 47p
C702 47p
C701 100p
Q701 DTC123JK
R718 2.2k
CON5
LED SW
VM (+12V)
D-GND
CD ON
R CH
A-GND
L CH
FROM A MAIN C.B CON604
CON7
CON701
LED703 SEL1250SM
LED701 SEL1250SM
R719 820
LED702 SEL1550CM
R720 470
LED701~703
CD TRACK LIGHTING
M LED C.B
SIGNAL:
ANALOG
CONTROL


IC801 NJW1102AF
DOLBY PRO-LOGIC
HE, U:8.2k EZ, G:22K
HE, U:3.3k EZ, G:6.8K
D801 HZS5C3
IC650 M65849FP
DSP/MIC ECHO
Q652 DTC114EK
Q653 DTA114YK
Q652, 653 MUTE SELECT
D650 HZS6B1L
D651 1SS132
D652 1SS132
D654 1SS184
FB640
FLTR, EMI BL OIRNI
CON301
CON281
FROM B FRONT C. B
HOLD
SUR-MUTE
R-OUT
L-OUT
R-IN
L-IN
VCC
DLY-OUT
MIC-IN
CLK
DATA
LATCH
GND
VR-UP
VR-DOWN
MIC
A-GND


J901
REAR SURR SP (L)
SURROUND SPEAKERS
I MP : 16Ω
REAR SURR SP (R)
CENTER SP
CENTER SPEAKERS
I MP : 8Ω
Q909 KTA1266GR
MUTE SW
Q902 2SC3326B
Q901,902
MUTE
Q901 2SC3326B
IC901 STK405 -030
POWER IC
SUB
OVER CURRENT DET
Q903 KTC3198 GR
Q904 KTC3198 GR
Q905 2SA1162 GR
POWER ON MUTE
D901 RS403L -B-D-51
CON901
FROM E AC C. B CON101
H PRO. AMP C. B
CON902
SURR
MUTE HOLD
VCC
S-IN
A-GND
C-IN
W280
CON282
BUFFER LCH
BUFFER RCH
BUFFER REAR
BUFFER CENTER
IC282 (1/2) NJM4558MD
IC282 (2/2) NJM4558MD
IC281 (1/2) NJM4558MD
IC281 (2/2) NJM4558MD
VR714 VOL, 50KBX4
VOLUME
G PRO. VR C. B
SIGNAL:
PB/MIC


FL201
FRONT
Плата
системного
контроллера
MIC Плата микрофонного входа
CD KEY
Плата клавиатуры
CD-плейера
Плата
регулятора
громкости
VR
MAIN
Основная
плата
6ZG-1 DFNM
Плата
силового
трансформатора
PT
PT101
Плата
сетевого
входа
AC2
Держатели
2ZM-3 MK2
PR6N
Главное шасси


14
15
B
B
42
30
A
16
12
13
17
11
10
18
9
7
3
18
19
2
5
6
A
20
4
HEAD 1
HEAD 2
22
57
(Дека1)
21
29
(Дека 2)
24
25
23
26
29
A
27
1
28


51
SOL 2
52
8
8
A
56
50
SOL 1
49
44
41
50
B
47
43
35
41
48
33
45
37
36
46
31
34
D
C
32
A
40
D
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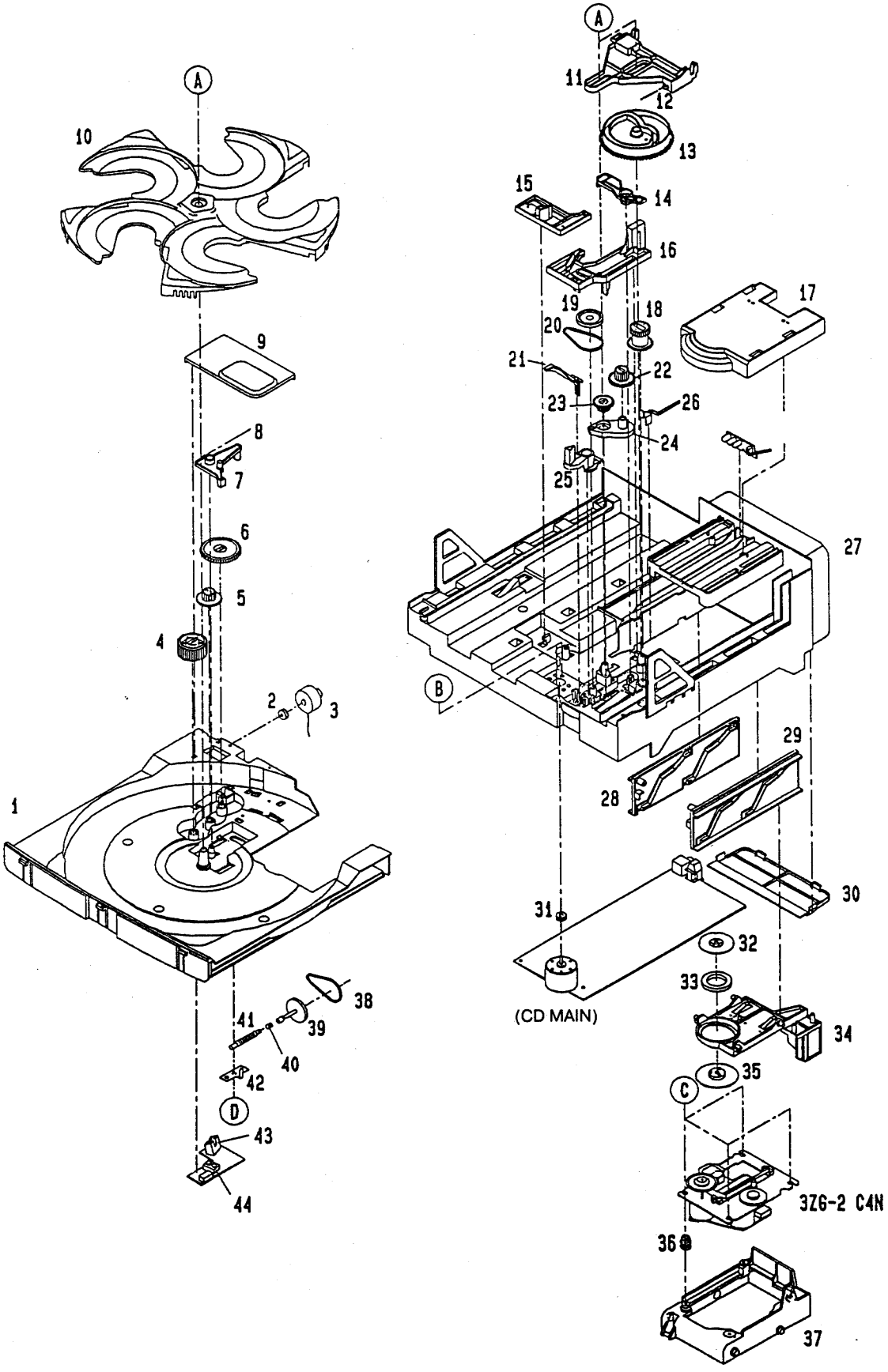
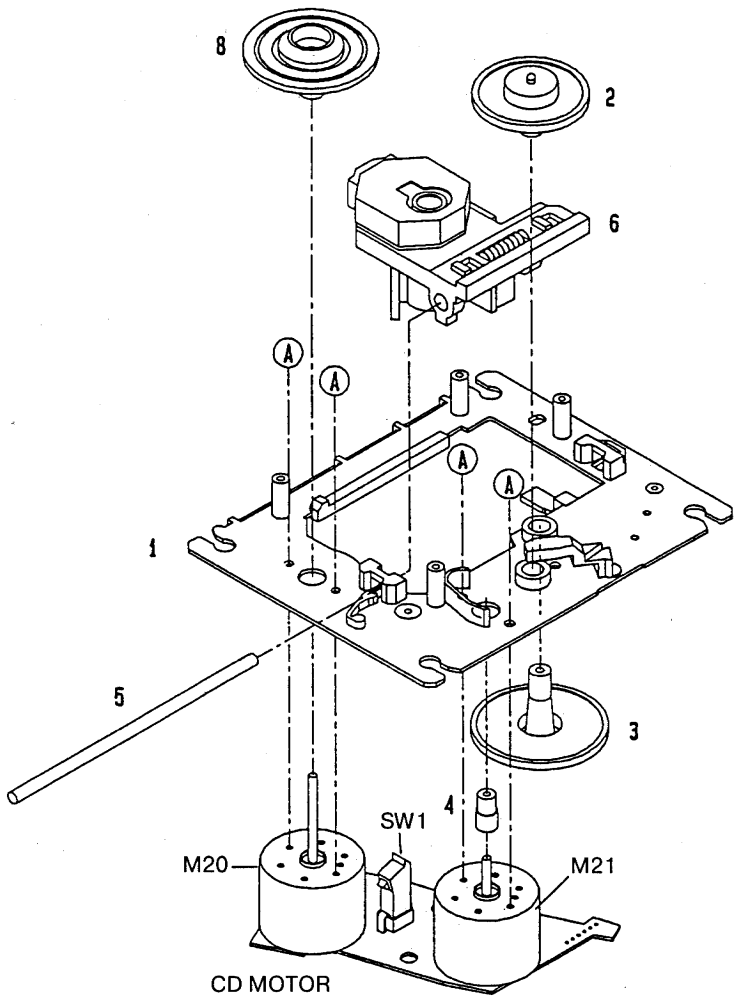
39
B
38
D
C
C
54
53

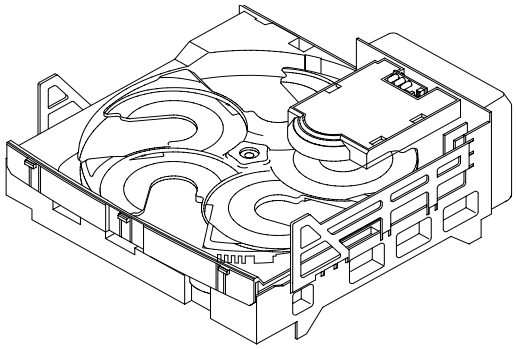

A
10
9
8
7
6
5
4
2
3
1
41
38
39
40
42
D
43
44
A
11
12
13
15
14
16
19
18
17
20
21
22
23
26
24
25
27
B
29
28
30
31
32
33
(CD MAIN)
34
35
C
3ZG-2 C4N
36
37


8
2
6
A
A
A
A
1
5
3
4
SW1
M20
M21
CD MOTOR

aiwa

aiwa SERVICE

6ZG-1



CD MECHANISM

• BASIC CD MECHANISM: 3ZG-2 E2

• TYPE: English

SERVICE MANUAL

BASIC NAME	DERIVATION NAME							
6ZG-1	V	O	S1	D	SH	—	—	—

■ This mechanism has various derivation. Derivation name is indicated by the Service Manual for eath model.

S/M Code No. 09-985-249-7OT

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IC BLOCK DIAGRAM 35, 36

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CD MECHANISM EXPLODED VIEW/LIST 43

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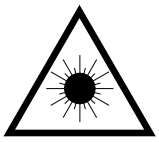
PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynling laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

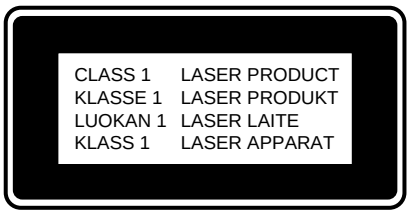
ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

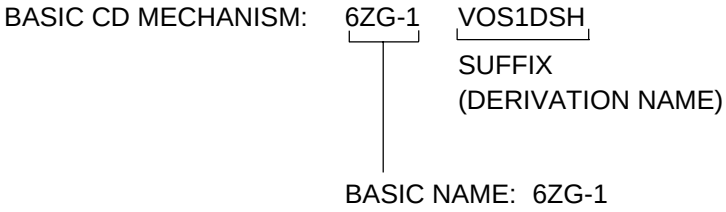
ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



This is the SERVICE MANUAL for the BASIC CD MECHANISM of BASIC NAME: 6ZG-1. This BASIC NAME includes the following models as shown under the SUFFIX name: DERIVATION NAME. Please use this manual with the separate SERVICE MANUAL for DERIVATION NAME.



BASIC NAME	DERIVATION NAME							
6ZG-1	V	O	S1	D	SH	—	—	—

DERIVATION NAME

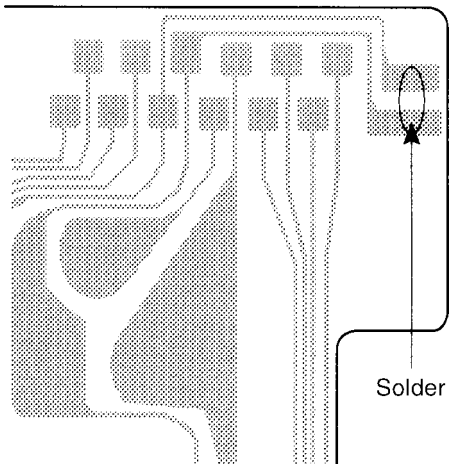
- V: VIDEO OUT
- O: On screen display
- S1: THE 1st SONY IC MODEL
- D: Digital output function
- SH: Pick up equipped with shutter

Precaution to replace Optical block (KSS-213F)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

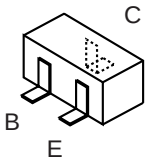
1) After the connection, remove solder shown in the right figure.

PICK-UP Assy P.C.B

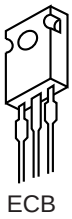


TRANSISTOR ILLUSTRATION

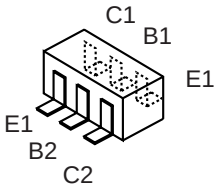
2SC2001
2SD2172



2SA1162
2SC2712
DTA123JK
DTA124XK
DTC123JK
DTC124XK
DTC143TK
DTC144EK



2SA1357



HN1C03F

DISASSEMBLY INSTRUCTIONS

1. How to replace PICK UP.

1) Open the TRAY.
   Push the stopper to arrow direction and release half of the SHAFT SLED.
2) Turn GEAR MAIN CAM to the counterclockwise (arrow “a”) direction, and lift up CD mechanism. (Fig-1)
3) Remove SHAFT SLED.
4) CD mechanism in down position, replace PICK UP.
5) Lift up CD mechanism (Fig-1), and Reassemble the SHAFT SLED.

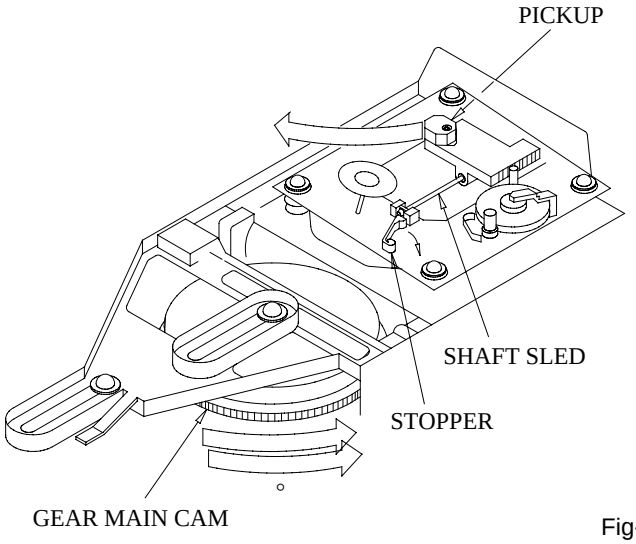
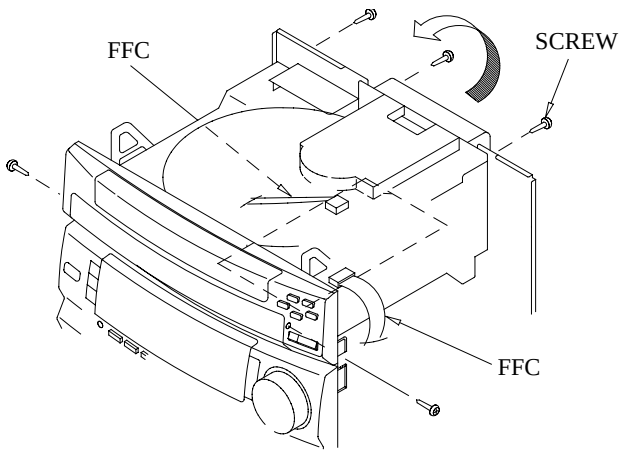


Fig-1

2. How to remove the 5CD CHANGER BLOCK (Fig-2)

1) Remove the two FFC of the CD circuit board, and remove the five SCREWS.
2) Lift 5 CD CHANGER BLOCK from behind, and remove it. (5CD CHANGER BLOCK can be removed even if PANEL TRAY is not removed.)



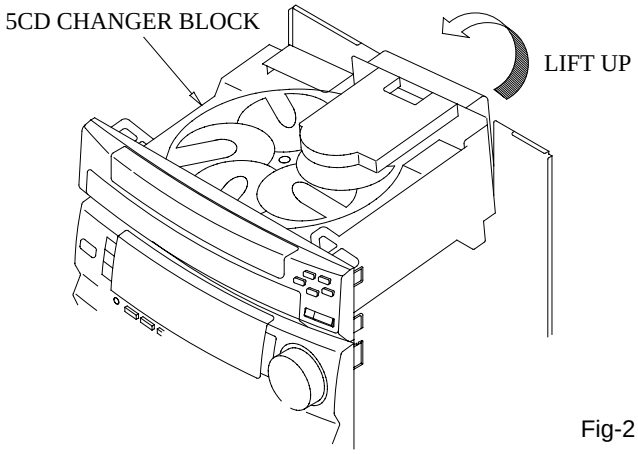


Fig-2

3. The disassemble and reassemble the TRAY

3-1. Disassembling procedure.

1) Push the PLATE GEAR'S Boss at the bottom part of CHAS MECHA strongly to the outside (arrow "b" direction). (Fig-3)
   (Confirm that TRAY appears a little in the front.)
2) Draw TRAY to the open position.
3) Remove FFC, and push the two LEVERS at both side of the CHAS MECH to remove TRAY. (Fig-4)

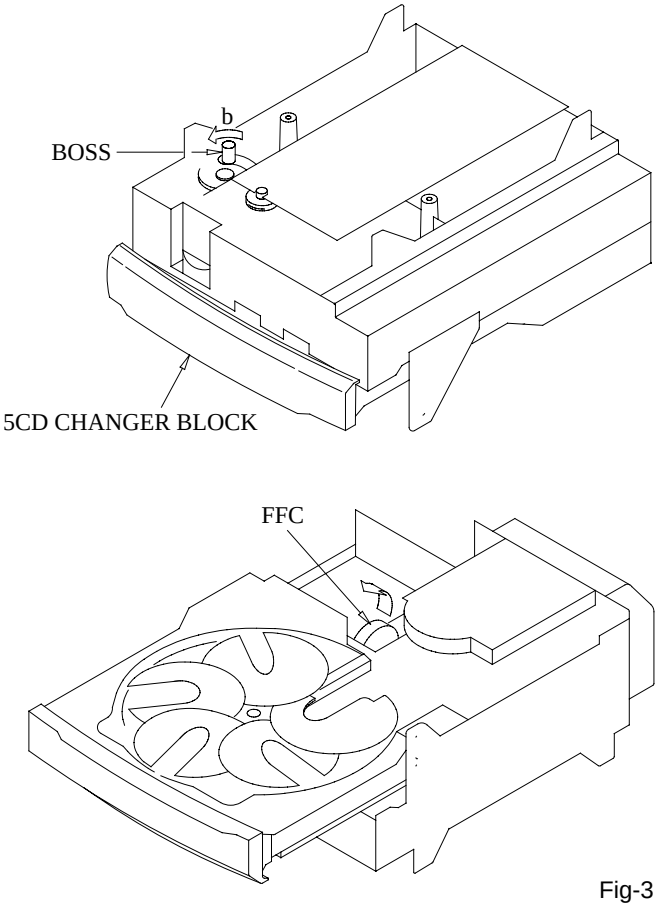


Fig-3

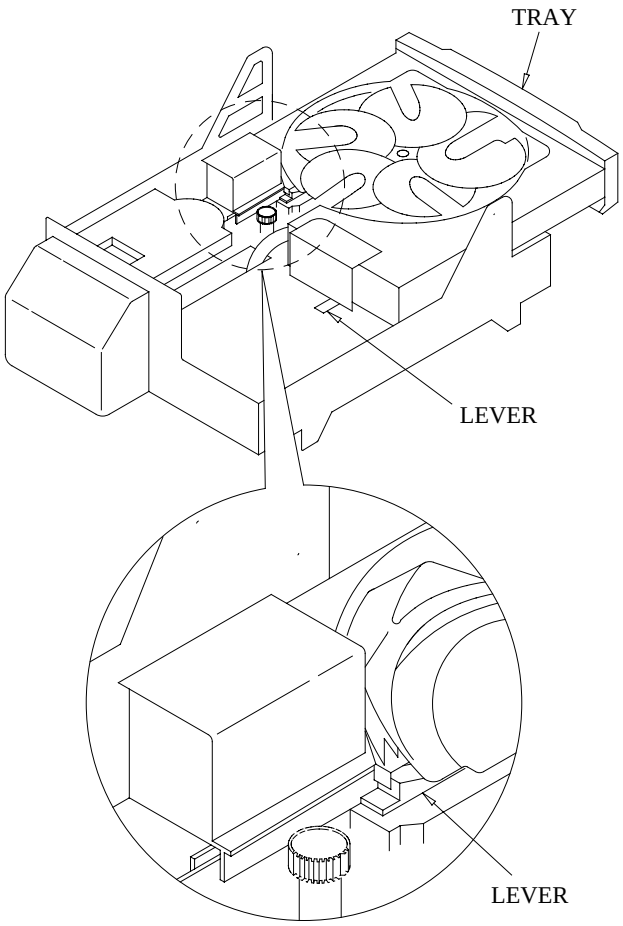


Fig-4

3-2. Reassembling procedure.

1) Confirm that LEVER TRAY is at the most right position and check for the CD Mechanism to be in the down position. (Fig-5)
2) Push in the TRAY along the rail of the CHAS MECHA.
3) After TRAY is half closed and FFC is put in, it can enter by force until the end of TRAY closed. (Fig-6)

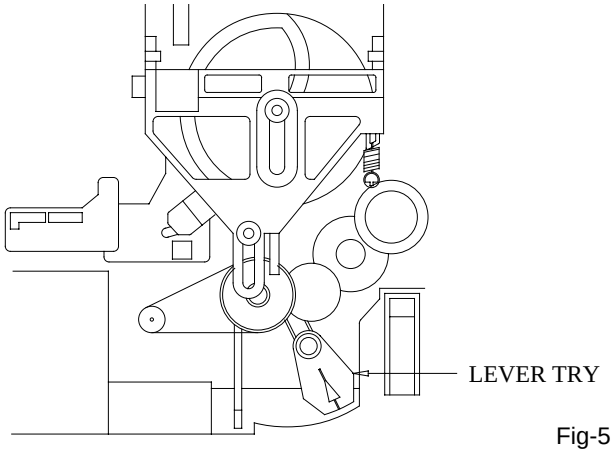


Fig-5

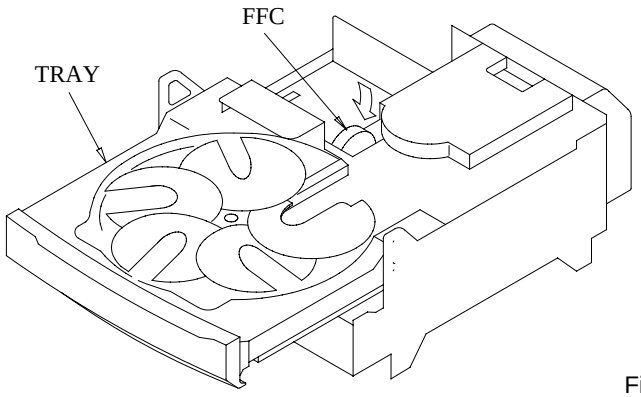


Fig-6

4. How to reassemble the TURN TABLE. (Fig-7)

1) Push LEVER TT in the direction of “C”, and put in the TURN TABLE 5CD. (Fig-7)
After reassembly, one of the TURN TABLE DISC TRAY (can be either one of the five disc trays) must be aligned with TURN TABLE 5CD. (Fig-8)
That is, having no gap difference between the TURN TABLE 5CD and the TRAY 5CD.

* When reassembling the TURN TABLE 5CD, it is acceptable facing any CD number (1-5).

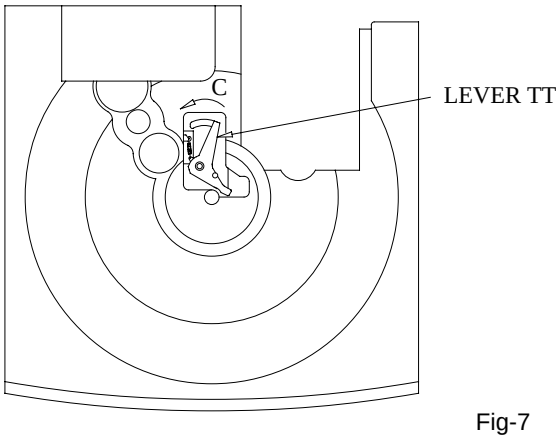


Fig-7

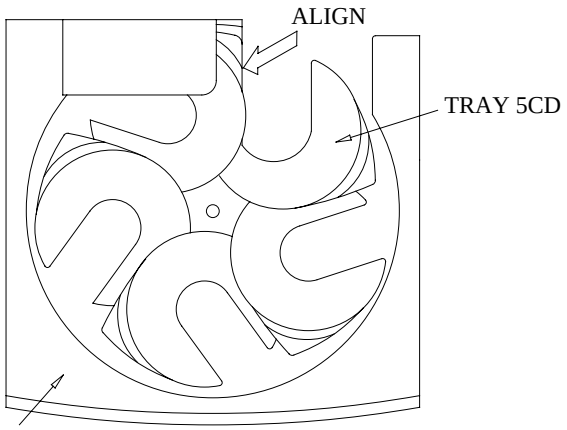


Fig-8

ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

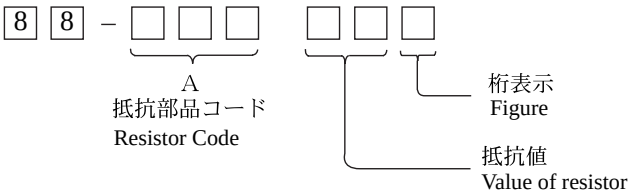
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A20-547-010		C-IC,CXA1992AR
	87-A20-919-040		C-IC,BA5915FP
	87-A20-917-010		C-IC,CXD2540Q-1/2
	87-A20-602-040		C-IC,M5291FP
	87-A20-925-040		C-IC,BA05FP
	87-A20-905-040		C-IC,BA033FP
	87-001-982-010		IC,TA7291S
	87-A20-918-040		C-IC,SM5878AM
	87-A20-653-010		C-IC,RL5C293
	87-017-825-010		IC,GP1F32T
	86-ZG1-657-010		C-IC,CXP84540-111
	87-A20-592-040		C-IC,M51943 AML
	87-A20-895-010		C-IC,CXD1856Q
	87-A20-921-040		C-IC,SN74LVU04APW
	87-A20-249-040		C-IC,BU2874FV
	87-A20-656-040		C-IC,MB81V4260S-60/70PFTN
	87-A20-957-040		C-IC,SN74LV245APW
	86-ZG1-655-040		C-IC,MSM531031B-72GS-KR1
	87-A20-958-040		C-IC,TC74HC393AF
TRANSISTOR			
	89-111-625-080		TR,2SA1162 (0.15W)
	87-026-237-080		CHIP-TR,DTC124XK
	87-A30-117-010		TR,2SA1357
	87-026-231-080		CHIP-TRANSISTER,DTA124XK
	89-421-722-380		TR,2SD2172V/W
	89-320-011-080		TR,2SC2001 (15W)
	87-026-223-080		TR,DTC143TK
	87-026-608-080		C-TR,DTC 123 JK
	89-327-125-080		CHIP TR,2SC2712GR
	87-026-580-080		C-TR,DTA123JK
	87-026-470-080		TR,HN1C03F (0.3W)
	87-026-210-080		CHIP-TR,DTC144EK
DIODE			
	87-020-027-080		CHIP-DIODE 1SS184
	87-A40-180-080		C-DIODE,SB07-015C
MAIN VCD C.B			
C101	87-010-182-080		C-CAP,S 2200P-50 B
C102	87-016-669-080		C-CAP,S 0.1-25 K B
C103	87-016-669-080		C-CAP,S 0.1-25 K B
C104	87-016-669-080		C-CAP,S 0.1-25 K B
C105	87-010-404-040		CAP,E 4.7-50 SME
C106	87-016-669-080		C-CAP,S 0.1-25 K B
C107	87-010-197-080		CAP, CHIP 0.01 DM
C108	87-010-401-040		CAP,E 1-50 SME
C109	87-010-382-040		CAP,E 22-25 SME
C110	87-010-213-080		C-CAP,S 0.015-50 B
C111	87-010-263-040		CAP,E 100-10
C112	87-010-197-080		CAP, CHIP 0.01 DM
C113	87-010-369-080		C-CAP,S 0.033-25 K B
C114	87-010-369-080		C-CAP,S 0.033-25 K B
C115	87-010-369-080		C-CAP,S 0.033-25 K B
C116	87-012-158-080		C-CAP,S 390P-50 CH
C117	87-012-154-080		C-CAP,S 150P-50 CH
C118	87-010-401-040		CAP,E 1-50 SME
C119	87-010-152-080		C-CAP,S 8P-50 CH
C120	87-010-596-080		CAP, S 0.047-16
C121	87-010-596-080		CAP, S 0.047-16
C123	87-016-669-080		C-CAP,S 0.1-25 K B
C125	87-010-198-080		CAP, CHIP 0.022
C126	87-016-669-080		C-CAP,S 0.1-25 K B
C127	87-010-263-040		CAP,E 100-10
C130	87-010-263-040		CAP,E 100-10
C131	87-010-263-040		CAP,E 100-10
C132	87-010-178-080		CHIP CAP 1000P
C133	87-010-263-040		CAP,E 100-10
C134	87-016-669-080		C-CAP,S 0.1-25 K B
C135	87-016-669-080		C-CAP,S 0.1-25 K B
C136	87-010-196-080		CHIP CAPACITOR,0.1-25
C137	87-010-196-080		CHIP CAPACITOR,0.1-25
C138	87-010-182-080		C-CAP,S 2200P-50 B
C139	87-010-197-080		CAP, CHIP 0.01 DM
C140	87-010-384-040		CAP,E 100-25 SME
C141	87-016-669-080		C-CAP,S 0.1-25 K B
C142	87-010-196-080		CHIP CAPACITOR,0.1-25
C143	87-010-197-080		CAP, CHIP 0.01 DM
C144	87-016-669-080		C-CAP,S 0.1-25 K B
C145	87-016-669-080		C-CAP,S 0.1-25 K B
C149	87-010-213-080		C-CAP,S 0.015-50 B
C151	87-010-263-040		CAP,E 100-10
C152	87-010-197-080		CAP, CHIP 0.01 DM
C153	87-016-251-040		CAP,E 220-16 SMG
C154	87-016-669-080		C-CAP,S 0.1-25 K B
C155	87-010-184-080		CHIP CAPACITOR 3300P(K)
C156	87-016-669-080		C-CAP,S 0.1-25 K B
C157	87-010-992-080		C-CAP,S 0.047-25 B
C158	87-012-156-080		C-CAP,S 220P-50 CH
C159	87-016-526-080		C-CAP,S 0.47-16 BK
C160	87-010-197-080		CAP, CHIP 0.01 DM
C161	87-010-182-080		C-CAP,S 2200P-50 B
C301	87-016-251-040		CAP,E 220-16 SMG
C302	87-012-140-080		CAP 470P
C303	87-010-178-080		CHIP CAP 1000P
C304	87-010-384-040		CAP,E 100-25 SME
C305	87-010-384-040		CAP,E 100-25 SME
C306	87-016-251-040		CAP,E 220-16 SMG
C307	87-016-669-080		C-CAP,S 0.1-25 K B
C308	87-010-263-040		CAP,E 100-10
C309	87-016-669-080		C-CAP,S 0.1-25 K B
C310	87-010-263-040		CAP,E 100-10
C311	87-016-669-080		C-CAP,S 0.1-25 K B
C312	87-010-178-080		CHIP CAP 1000P
C401	87-010-403-040		CAP,E 3.3-50 SME
C402	87-010-403-040		CAP,E 3.3-50 SME
C601	87-010-197-080		CAP, CHIP 0.01 DM
C602	87-016-251-040		CAP,E 220-16 SMG
C603	87-016-669-080		C-CAP,S 0.1-25 K B
C706	87-012-140-080		CAP 470P
C707	87-012-140-080		CAP 470P
C708	87-012-140-080		CAP 470P
C709	87-012-140-080		CAP 470P
C801	87-010-197-080		CAP, CHIP 0.01 DM
C802	87-010-197-080		CAP, CHIP 0.01 DM
C803	87-010-384-040		CAP,E 100-25 SME
C804	87-016-669-080		C-CAP,S 0.1-25 K B
C805	87-016-669-080		C-CAP,S 0.1-25 K B
C806	87-010-196-080		CHIP CAPACITOR,0.1-25
C807	87-010-313-080		CAP, CHIP 18P
C808	87-010-313-080		CAP, CHIP 18P
C809	87-010-178-080		CHIP CAP 1000P
C810	87-010-178-080		CHIP CAP 1000P
C811	87-010-178-080		CHIP CAP 1000P
C812	87-010-178-080		CHIP CAP 1000P
C813	87-010-405-040		CAP,E 10-50
C814	87-010-405-040		CAP,E 10-50
C815	87-010-318-080		C-CAP,S 47P-50 CH
C816	87-010-318-080		C-CAP,S 47P-50 CH
C851	87-010-197-080		CAP, CHIP 0.01 DM
C852	87-010-197-080		CAP, CHIP 0.01 DM
C853	87-010-196-080		CHIP CAPACITOR,0.1-25
C854	87-010-196-080		CHIP CAPACITOR,0.1-25
C855	87-010-197-080		CAP, CHIP 0.01 DM
C856	87-012-140-080		CAP 470P

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C857	87-012-140-080		CAP 470P
C858	87-010-322-080		C-CAP,S 100P-50 CH
C859	87-010-221-040		CAP,E 470-10 SME
C860	87-010-405-040		CAP,E 10-50
C861	87-010-197-080		CAP, CHIP 0.01 DM
C862	87-010-405-040		CAP,E 10-50
C863	87-010-197-080		CAP, CHIP 0.01 DM
C864	87-010-197-080		CAP, CHIP 0.01 DM
C865	87-010-197-080		CAP, CHIP 0.01 DM
C891	87-010-405-040		CAP,E 10-50
C892	87-010-197-080		CAP, CHIP 0.01 DM
C893	87-010-322-080		C-CAP,S 100P-50 CH
C901	87-010-197-080		CAP, CHIP 0.01 DM
C903	87-010-197-080		CAP, CHIP 0.01 DM
C904	87-010-196-080		CHIP CAPACITOR,0.1-25
C905	87-010-196-080		CHIP CAPACITOR,0.1-25
C906	87-010-405-040		CAP,E 10-50
C931	87-010-805-080		CAP, S 1-16
C932	87-010-197-080		CAP, CHIP 0.01 DM
C933	87-010-322-080		C-CAP,S 100P-50 CH
C943	87-010-405-040		CAP,E 10-50
C944	87-010-805-080		CAP, S 1-16
C945	87-010-154-080		CAP CHIP 10P
C946	87-010-154-080		CAP CHIP 10P
C947	87-010-316-080		C-CAP,S 33P-50 CH
C948	87-010-316-080		C-CAP,S 33P-50 CH
C949	87-010-805-080		CAP, S 1-16
C952	87-010-805-080		CAP, S 1-16
C953	87-010-196-080		CHIP CAPACITOR,0.1-25
C954	87-010-196-080		CHIP CAPACITOR,0.1-25
C955	87-010-196-080		CHIP CAPACITOR,0.1-25
C956	87-010-805-080		CAP, S 1-16
C957	87-010-805-080		CAP, S 1-16
C958	87-010-805-080		CAP, S 1-16
C959	87-010-805-080		CAP, S 1-16
C960	87-010-805-080		CAP, S 1-16
C961	87-010-805-080		CAP, S 1-16
C962	87-010-805-080		CAP, S 1-16
C963	87-010-196-080		CHIP CAPACITOR,0.1-25
C991	87-010-322-080		C-CAP,S 100P-50 CH
C992	87-010-322-080		C-CAP,S 100P-50 CH
CN3	87-A60-133-010		CONN,8P V FE
CN6	87-A60-160-010		CONN,12P H FE
CN101	87-A60-424-010		CONN,16P V TOC-B
CN102	87-009-034-010		CONN,6P PH V
CN301	87-A60-154-010		CONN,6P H FE
CN851	87-A60-109-010		CONN,2P V S2M-2W
CON8	87-A60-156-010		CONN,8P H FE
CON102	86-ZG1-609-010		CONN ASSY,6P
FC1	86-ZG1-605-010		CABLE,FFC 16P
FC2	86-ZG1-667-010		F-CABLE,8P 1.25 175MM BLACK
J851	87-009-502-010		JACK,PIN 1P Y EARTH
L101	87-005-196-080		COIL,10UH
L102	87-005-196-080		COIL,10UH
L151	87-005-204-080		COIL,47UH
L301	87-A50-095-010		COIL,68UH RCR875D
L302	87-005-469-080		COIL 4.7UH FLR50
L851	87-005-196-080		COIL,10UH
L852	87-005-466-080		COIL,2.7UH J FLR50
L853	87-005-196-080		COIL,10UH
L891	87-005-196-080		COIL,10UH
L901	87-005-196-080		COIL,10UH
L941	87-005-196-080		COIL,10UH
M601	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA)
R130	87-022-364-080		C-RES,S 82K-1/10W F
R131	87-022-364-080		C-RES,S 82K-1/10W F
R132	87-022-364-080		C-RES,S 82K-1/10W F
R133	87-022-364-080		C-RES,S 82K-1/10W F
R134	87-022-364-080		C-RES,S 82K-1/10W F
R135	87-022-364-080		C-RES,S 82K-1/10W F
SW601	87-036-109-010		PUSH SWITCH
SW602	87-036-109-010		PUSH SWITCH
SW603	87-036-109-010		PUSH SWITCH
X801	87-030-270-080		VIB,XTAL 16.9344MHZ
X901	87-030-264-080		CERA LOCK(MU)12.0MHZ
X902	87-A70-145-080		VIB,CER 33.86MHZ CSTMXWOH3
X903	87-A70-152-080		VIB,CER 45.00MHZ CSAMXZ040
X904	87-A70-084-080		VIB,XTAL 13.5MHZ-50P
LED C.B			
LED701	87-017-733-080		LED,SEL1250SM
LED702	87-017-350-080		LED,SEL1550CM
LED703	87-017-733-080		LED,SEL1250SM
T-T C.B			
C411	87-018-214-080		CAP TC U 0.1-50F
LED411	87-070-288-010		LED,GL380
M401	87-A90-036-010		MOT ASSY,RF-300CA-11
PS401	87-A90-156-010		SNSR,SG-240
Q411	87-A30-031-010		P-TR,PT380F
S401	87-036-109-010		PUSH SWITCH
VIDEO SW C.B			
S851	87-A90-238-010		SW,SL 1-1-3 9L

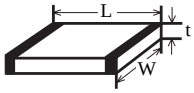
- Regarding connectors, they are not stocked as they are not the initial order items.
  The connectors are available after they are supplied from connector manufacturers upon the order is received.

○ チップ抵抗部品コード / CHIP RESISTOR PART CODE

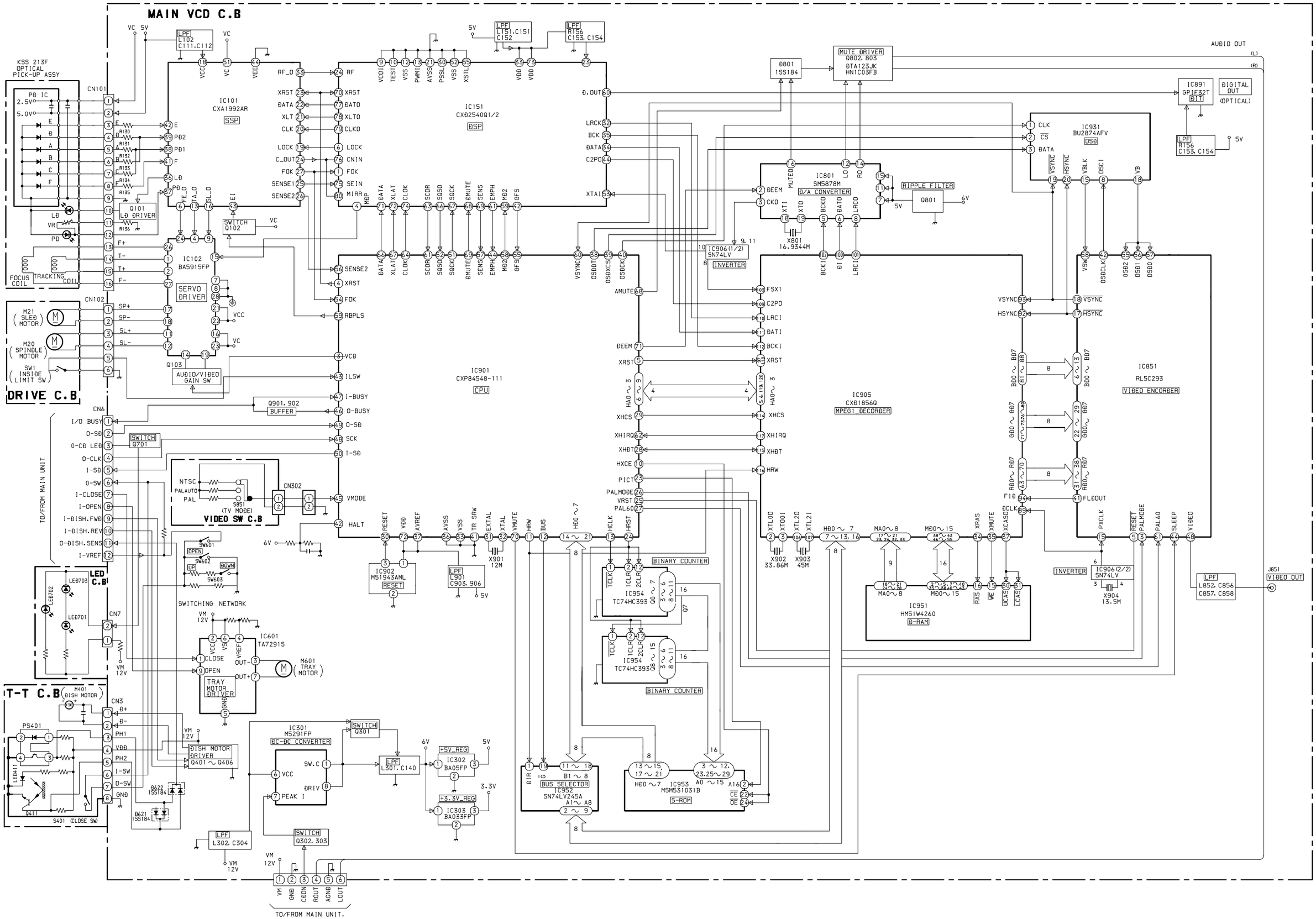
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding

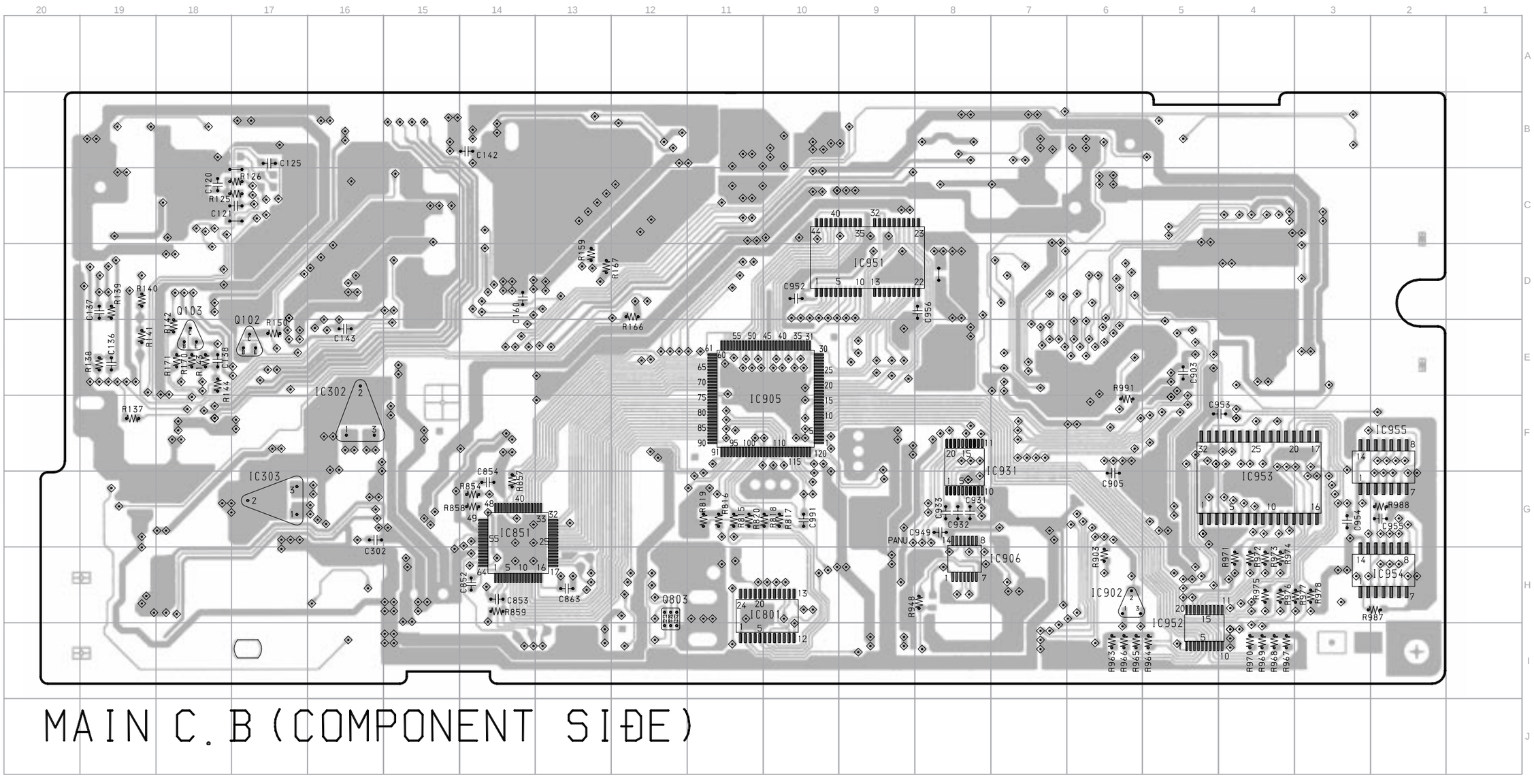


チップ抵抗
Chip resistor

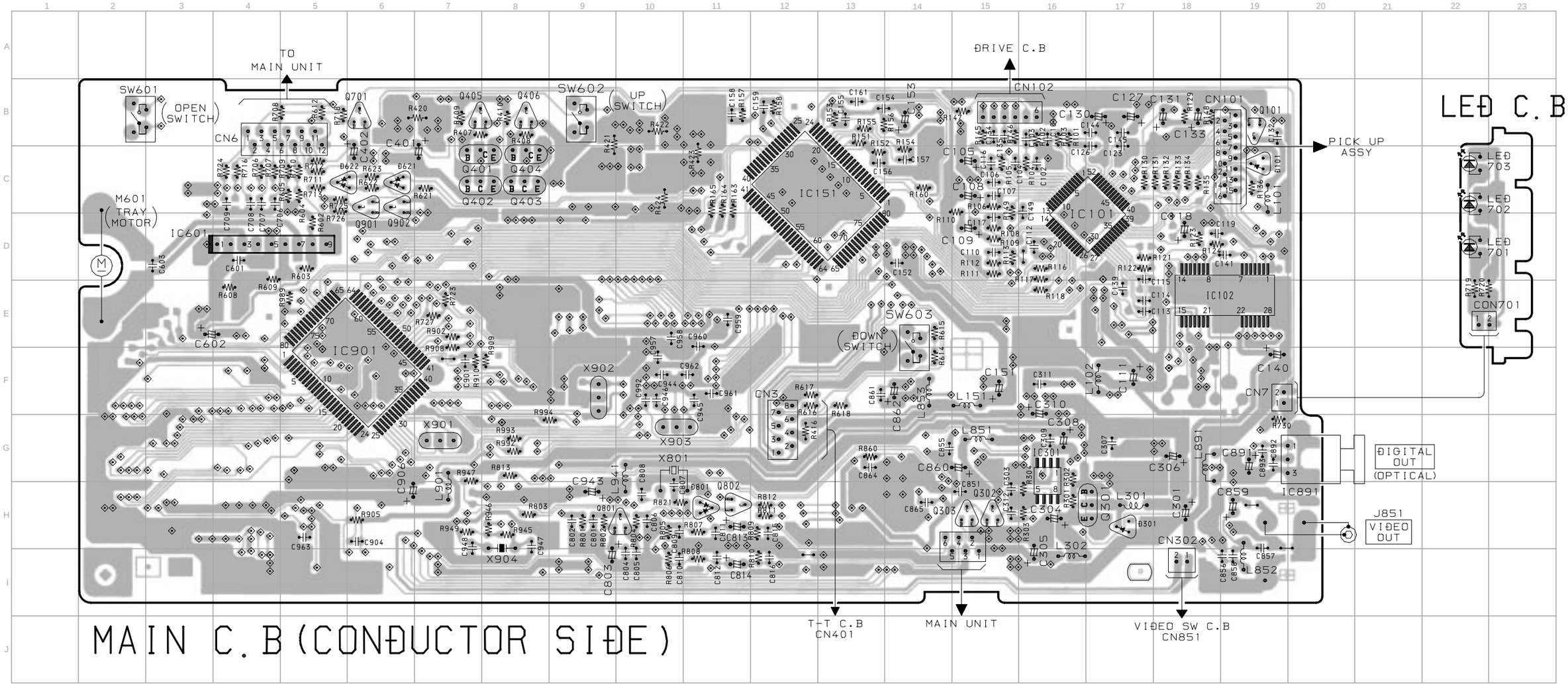
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法 / Diamensions (mm)				抵抗コード　：A Resistor Code : A
				外形 / Form	L	W	t	
1/16W	1608	5%	CJ		1.6	0.8	0.45	108
1/10W	2125	5%	CJ		2	1.25	0.45	118
1/8W	3216	5%	CJ		3.2	1.6	0.55	128

BLOCK DIAGRAM



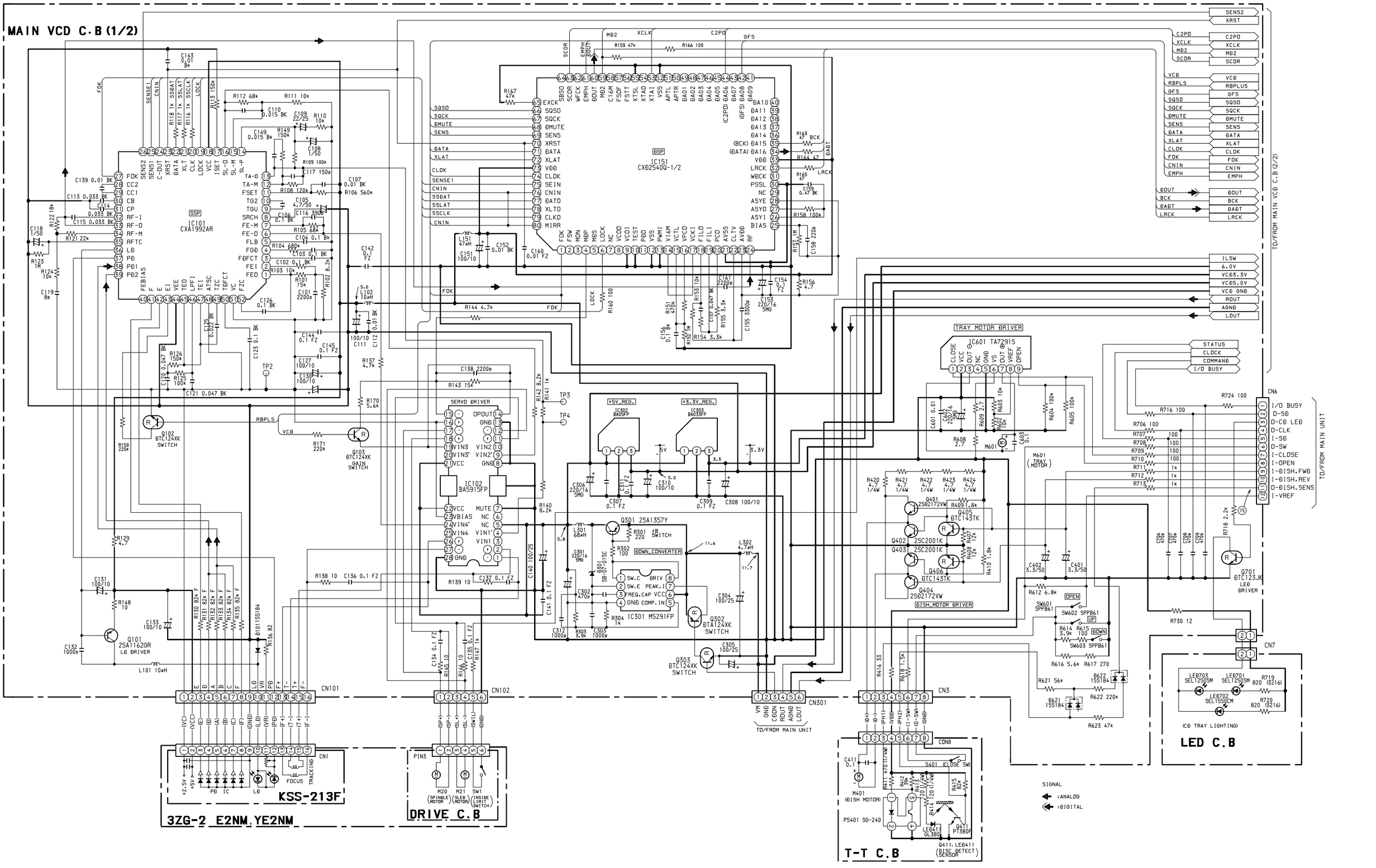


MAIN C.B (COMPONENT SIDE)

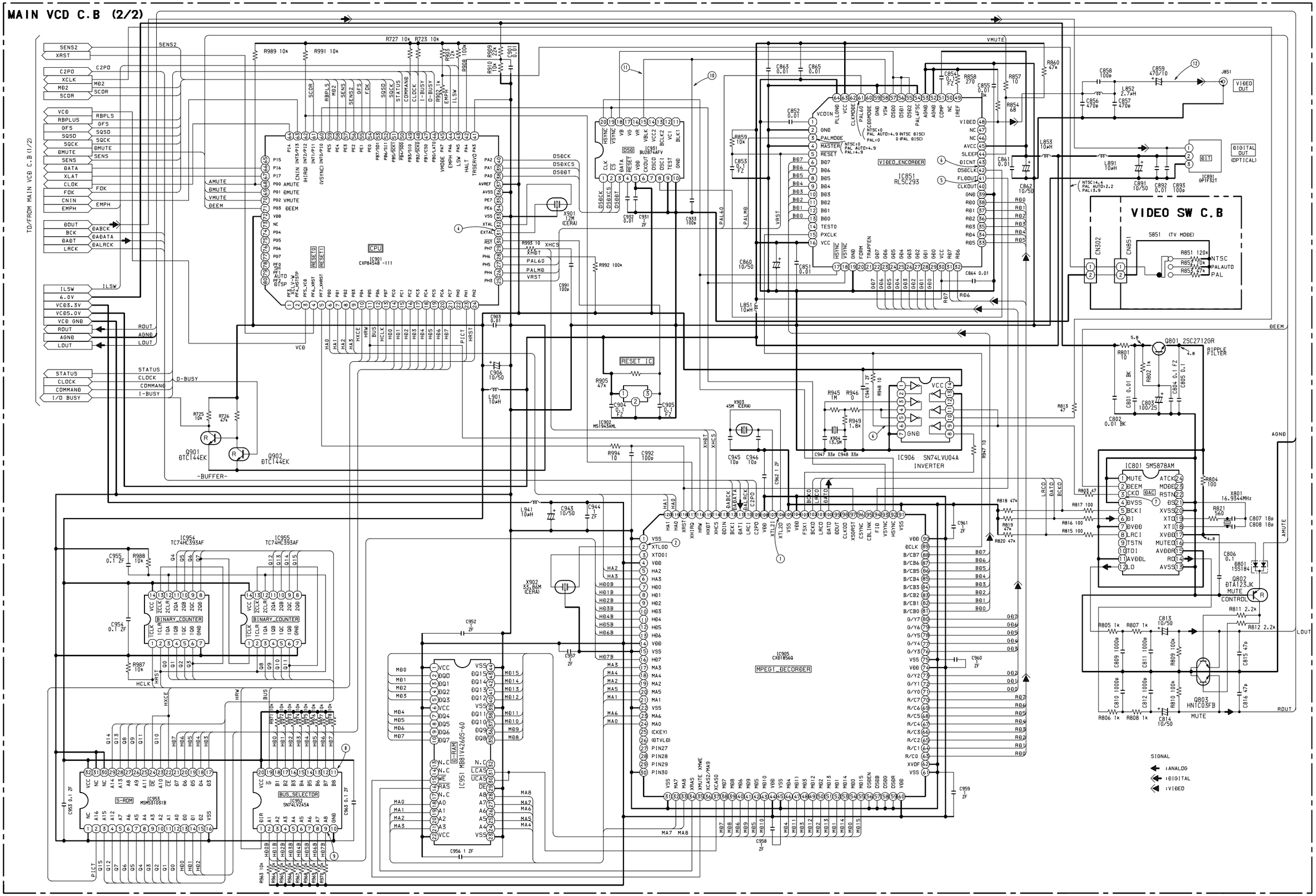


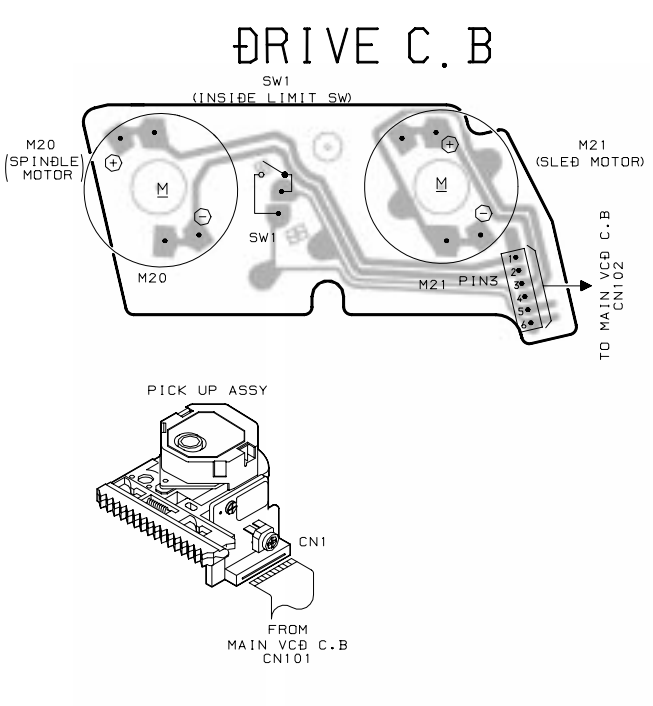
MAIN C.B(CONÐUCTOR SIÐE)

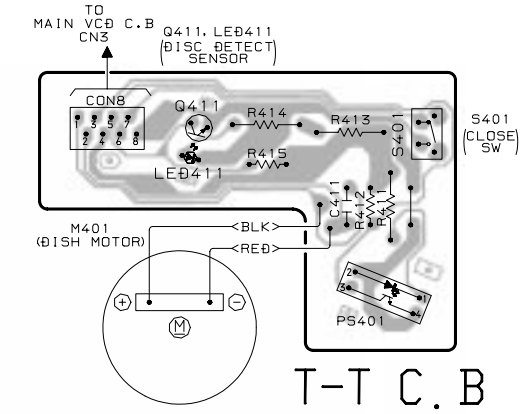
SCHEMATIC DIAGRAM-1

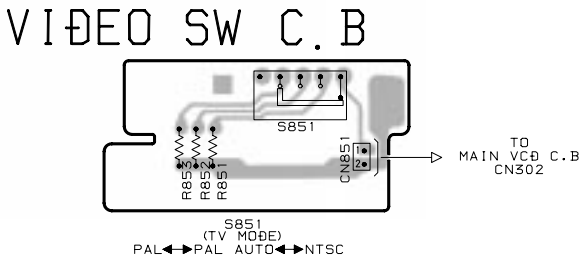


SCHEMATIC DIAGRAM-2




ÐRIVE C.B
SW1
(INSIÐE LIMIT SW)
M20
(SPINÐLE)
MOTOR
M21
(SLEÐ MOTOR)
SW1
M20
M21 PIN3
TO MAIN VCÐ C.B
CN102
PICK UP ASSY
CN1
FROM
MAIN VCÐ C.B
CN101


TO
MAIN VCÐ C.B
CN3
Q411, LEÐ411
(ÐISC ÐETECT)
SENSOR
CON8
Q411
R414
R413
R415
LEÐ411
S401
S401
(CLOSE)
SW
C411
R412
R411
M401
(ÐISH MOTOR)
<BLK>
<REÐ>
PS401
T-T C.B


VIÐEO SW C.B
S851
R853
R852
R851
CN851
TO
MAIN VCÐ C.B
CN302
S851
(TV MOÐE)
PAL←→PAL AUTO←→NTSC

IC DESCRIPTION

IC, CXA1992AR

Pin No.	Pin Name	I/O	Description
1	FEO	O	Output terminal for focus error amplifier. Internally connected to window comparator input for bias condition.
2	FEI	I	Input terminal for focus error.
3	FDFCT	I	Capacitor connection terminal for time constant used when there is defect.
4	FGD	I	This pin is connected to GND via capacitor when high frequency gain of the focus servo is attenuated.
5	FLB	I	This is a pin where the time constant is externally connected to raise the low frequency gain of the focus servo.
6	FE_O	O	Focus drive output.
7	FEM	I	Focus amplifier inverted input pin.
8	SRCH	I	This is a pin where the time constant is externally connected to generate the focus search waveform.
9	TGU	I	This is a pin where the selection time constant is externally connected to set the tracking servo the high frequency gain.
10	TG2	I	This is a pin where the selection time constant is externally connected to set the tracking high frequency gain.
11	FSET	I	Pin for setting peak of the phase compensator of the focus tracking.
12	TA_M	I	Tracking amplifier inverted input pin.
13	TA_O	O	Tracking drive output.
14	SL_P	I	Sled amplifier non-inverted input pin.
15	SL_M	I	Sled amplifier inverted input pin.
16	SL_O	O	Sled drive output.
17	ISET	I	The current which determines height of the focus search, track jump and sled kick is input with external resistance connected.
18	Vcc	I	Power supply.
19	LOCK	I	“L” setting starts sled disorder-prevention circuit. (Not pull-up resistance)
20	CLK	I	Clock input for serial data transfer from CPU. (No pull-up resistance)
21	XLT	I	Latch input from CPU. (No pull-up resistance)
22	DATA	I	Serial data input from CPU. (No pull-up resistance)
23	XRST	I	Reset system at “L” setting. (No pull-up resistance)
24	C_OUT	O	Signal output for track number counting.
25	SENS1	O	FZC, DFCT1, TZC, BALH, TGH, FOH, or ATSC is output depending on the command from CPU.
26	SENS2	O	DFCT2, MIRR, BALL, TGL or FOL is output depending on the command from CPU.
27	FOK	O	Output terminal for focus OK comparator.
28	CC2	I	Input pin where the DEFECT bottom hold output is capacitance coupled.
29	CC1	O	DEFECT bottom-hold output terminal. Internally connected to interruption comparator input.
30	CB	I	Connection terminal for DEFECT bottom-hold capacitor.
31	CP	I	Connection terminal for MIRR hold-capacitor. Anti-reverse input terminal for MIRR comparator.

Pin No.	Pin Name	I/O	Description
32	RF_I	I	Input terminal by capacity combination of RF summing amplifier.
33	RF_O	O	Output terminal of RF summing amplifier. Checkpoint of Eye pattern.
34	RF_M	I	Anti-reverse input terminal for RF summing amplifier. The gain of RF amplifier is decided by the connection resistance between RF_M and RFO terminals.
35	RFTC	I	This is a pin where the selection time constant is externally connected to control the RF level.
36	LD	O	APC amplifier output terminal.
37	PD	I	APC amplifier input terminal.
38, 39	PD1, PD2	I	RFI-V amplifier inverted input pin. These pins are connected to the A+C and B+C pins of the optical pickup, receiving by currents input.
40	FEBIAS	I/O	Bias adjustment pin of the focus error amplifier.
41, 42	F, E	I	F and EIV amplifier inverted input pins. These pins are connected to the F and E of the optical pickup, receiving by current input.
43	EI	—	Gain adjustment pin of the I-V amplifier E. (When not in use of BAL automatic adjustment)
44	VEE	—	GND connection pin.
45	TEO	O	Output terminal for tacking-error amplifier. Output E-F signal.
46	LPFI	I	BAL adjustment comparator input pin. (Input through LPF from TEO)
47	TEI	I	Input terminal for tracking error.
48	ATSC	I	Window-comparator input terminal for detecting ATSC.
49	TZC	I	Input terminal for tracking-zero cross comparator.
50	TDFCT	I	Capacitor connection pin for the time constant used when there is defect.
51	VC	O	Output terminal for DC voltage reduced to half of VCC+VEE.
52	FZC	I	Input terminal for focus-zero cross comparator.

IC, CXD2540Q

Pin No.	Pin Name	I/O	Description
1	FOK	I	Focus OK input. Used for SENS output and the servo auto sequencer.
2	FSW	O	Spindle motor output filter switching output.
3	MON	O	Spindle motor on/off control output.
4	MDP	O	Spindle motor servo control.
5	MDS	O	
6	LOCK	O	High, when sampled value of GFS at 460Hz is high. Low, when sampled value of GFS at 460Hz is low by 8 times successively.
7	NC		
8	VCOO	O	Analog EFM PLL oscillation circuit output.
9	VCOI	I	Analog EFM PLL oscillation circuit input. fLOCK=8.6436MHz.
10	TEST	I	TEST pin.
11	PDO	O	Analog EFM PLL charge pump output.
12	VSS		GND.
13	PWMI	I	Spindle motor external control input.
14	V16M	O	VCO2 oscillation output for the wide-band EFM PLL.
15	VCTL	I	VCO2 control voltage input for the wide-band EFM PLL.
16	VPCO	O	Wide-band EFM PLL charge pump output.
17	VCKI	I	VCO2 oscillation input for the wide-band EFM PLL.
18	FILO	O	Multiplier PLL (slave=digital PLL) filter output.
19	FILI	I	Multiplier PLL filter input.
20	PCO	O	Multiplier PLL charge pump output.
21	AVSS		Analog GND.
22	CLTV	I	Multiplier VCO1 control voltage input.
23	AVDD		Analog power supply (5V).
24	RF	I	EFM signal input.
25	BIAS	I	Constant current input of the asymmetry circuit.
26	ASYI	I	Asymmetry comparator voltage input.
27	ASYO	O	EFM full-swing output.
28	ASYE	I	Low: asymmetry circuit off; high: asymmetry circuit on.
29	NC		
30	PSSL	I	Audio data output mode switching input. Low: serial output; high: parallel output.
31	WDCK	O	D/A interface for 48-bit slot. Word clock f=2Fs.
32	LRCK	O	D/A interface for 48-bit slot. LR clock f=Fs.
33	VDD		Power supply (5V).
34	DA16	O	DA16 (MSB) output when PSSL=1. 48-bit slot serial data (two’s complement, MSB first) when PSSL=0.
35	DA15	O	DA15 output when PSSL=1. 48-bit slot bit clock when PSSL=0.
36	DA14	O	DA14 output when PSSL=1. 64-bit slot serial data (two’s complement, LSB first) when PSSL=0.
37	DA13	O	DA13 output when PSSL=1. 64-bit slot bit clock when PSSL=0.
38	DA12	O	DA12 output when PSSL=1. 64-bit slot LR clock when PSSL=0.

Pin No.	Pin Name	I/O	Description
39	DA11	O	DA11 output when PSSL=1. GTOP output when PSSL=0.
40	DA10	O	DA10 output when PSSL=1. XUGF output when PSSL=0.
41	DA09	O	DA09 output when PSSL=1. XPLCK output when PSSL=0.
42	DA08	O	DA08 output when PSSL=1. GFS output when PSSL=0.
43	DA07	O	DA07 output when PSSL=1. RFCK output when PSSL=0.
44	DA06	O	DA06 output when PSSL=1. C2PO output when PSSL=0.
45	DA05	O	DA05 output when PSSL=1. XRAOF output when PSSL=0.
46	DA04	O	DA04 output when PSSL=1. MNT3 output when PSSL=0.
47	DA03	O	DA03 output when PSSL=1. MNT2 output when PSSL=0.
48	DA02	O	DA02 output when PSSL=1. MNT1 output when PSSL=0.
49	DA01	O	DA01 output when PSSL=1. MNT0 output when PSSL=0.
50	APTR	O	Aperture compensation control output. This pin outputs a high signal when the right channel is used.
51	APTL	O	Aperture compensation control output. This pin outputs a high signal when the left channel is used.
52	VSS		GND.
53	XTAI	I	Crystal oscillation circuit input.
54	XTAO	O	Crystal oscillation circuit output.
55	XTSL	I	Crystal selector input.
56	FSTT	O	2/3 frequency divider output for Pins 53 and 54.
57	FSOF	O	1/4 frequency divider output for Pins 53 and 54.
58	C16M	O	16.9344MHz output. (V16M output in CLV-W and CAV-W modes)
59	MD2	I	Digital-out on/off control. High: on; low: off
60	DOUT	O	Digital-out output.
61	EMPH	O	Outputs a high signal when the playback disc has emphasis, and a low signal when there is no emphasis.
62	WFCK	I	WFCK (write frame clock) output.
63	SCOR	O	Outputs a high signal when either subcode sync S0 or S1 is detected.
64	SBSO	O	Sub P to W serial output.
65	EXCK	I	SBSO readout clock input.
66	SQSO	O	Sub Q 80-bit and PCM peak, level metter and internal status outputs.
67	SQCK	I	SQSO readout clock input.
68	MUTE	I	High: mute; low: release
69	SENS	—	SENS output to CPU.
70	XRST	I	System reset. Reset when low.
71	DATA	O	Serial data input from CPU.
72	XLAT	O	Latch input from CPU. Serial data is latched at the falling edge.
73	VDD		Power supply (5V).
74	CLOK	O	Serial data transfer clock input from CPU.
75	SEIN	I	SENS input from SSP.
76	CNIN	I	Track jump count signal input.

Pin No.	Pin Name	I/O	Description
77	DATO	O	Serial data output to SSP.
78	XLTO	O	Serial data latch output to SSP. Latched at the falling edge.
79	CLKO	O	Serial data transfer clock output to SSP.
80	MIRR	I	Mirror signal input. Used when the number of tracks is 128 or more for the 2N-track jump and M track move of the auto sequencer.

Notes)

- The 64-bit slot is an LSB first, two's complement output, and the 48-bit slot is an MSB first, two's complement output.
- GTOP is used to monitor the frame sync protection status. (High: sync protection window open.)
- XUGF is the negative pulse for the frame sync obtained from the EFM signal. It is the signal before sync protection.
- XPLCK is the inverse of the EFM PLL clock. The PLL is designed so that the falling edge and the EFM signal transition point coincide.
- GFS goes high when the frame sync and the insertion protection timing match.
- RFCK is derived from the crystal accuracy, and has a cycle of 136μ.
- C2PO represents the data error status.
- XRAOF is generated when the 32K RAM exceeds the ±28F jitter margin.

IC, SM5878M

Pin No.	Pin Name	I/O	Description
1	MUTE	I	MODE = H: Soft mute ON/OFF terminal. (Mute at H). MODE = L: Attenuator level DOWN/UP terminal. (DOWN at H).
2	DEEM	I	De-emphasis ON/OFF terminal. (De-emphasis ON at H).
3	CKO	O	Oscillator clock output. (16.9344 MHz).
4	DVSS	—	Digital VSS terminal.
5	BCKI	I	Bit clock input terminal.
6	DI	I	Serial data input terminal.
7	DVDD	—	Digital VDD terminal.
8	LRCI	I	Sample rate clock (fs) input terminal. (H = L ch/L = R ch).
9	TSTN	I	Test input. (“H” or open during normal operation)
10	TO1	O	Test output 1. (Normally low level output).
11	AVDDL	—	Analog VDD terminal. (For L ch).
12	LO	O	Left channel analog output terminal.
13	AVSS	—	Analog VSS terminal.
14	RO	O	Right channel analog output terminal.
15	AVDDR	—	Analog VDD terminal. (For R ch).
16	MUTEO	O	Infinity zero detection output.
17	XVDD	—	X’tal system VDD terminal.
18	XTI	I	X’tal oscillator terminal. (Or external clock input terminal of 16.9344 MHz).
19	XTO	O	X’tal oscillator terminal.
20	XVSS	—	X’tal system VSS terminal.
21	DS	I	Double-speed/normal playback selection. (Double-speed at H).
22	RSTN	I	Reset terminal. (Reset at L).
23	MODE	I	Soft mute/Attenuator mode selection. (Soft mute at H).
24	ATCK	I	Attenuator level setup clock (Ignored when MODE = H).

IC, CXD1856

Pin No.	Pin Name	I/O	Description
1	VSS	—	GND.
2, 3	XTL0O, XTL0I	O/I	Video decoder master clock. Input the clock signal to the XTL0I or connect an external oscillator between XTL0I and XTL 0O. The recommend frequency is 27 MHz, 28.3636 MHz (NTSC 8fs) or 65.4686 MHz (PAL 8fs).
4	VDD	—	Power supply.
5, 6, 119, 120	HA0-HA3	I	This is the register address input terminal when the host interface is in the parallel mode. HA0 is the serial data input terminal in the serial mode. HA1 to HA3 must be fixed to the “L” level during the serial mode.
7-13, 16	HD0-HD7	I/O	This is the register data input/output terminal when the host interface is in the parallel mode. HA0 is the serial data output terminal in the serial mode. HD1 to HD7 must be fixed the “L” level during the serial mode.
14	VDD	—	Power supply.
15	VSS	—	GND.
17-21, 23, 24, 32, 33	MA0-MA8	O	DRAM address signal output terminal. The DRAM address signal output terminal must be connected to the DRAM address terminal in the way that the terminal numbers match each other.
22	VSS	—	GND.
25	CKEY	O	Chroma key signal terminal. This terminal goes to “L” while outputting the color that is specified as the key color. Set this terminal to OPEN when it is not used.
26	DTVLD	O	Video data identification signal terminal. This terminal goes to “H” outputting the picture of the frame memory. This terminal goes to “L” while outputting the border color or during blanking. Set this terminal to OPEN when it is not used.
27-29	PIN27-PIN29	—	Not used.
30	PIN30	—	GND.
31	VSS	—	GND.
34	XRAS	O	Low address strobe signal output terminal. Connect this terminal to the DRAM $\overline{\text{RAS}}$ signal terminal.
35	XMWE	O	DRAM write enable signal output terminal. Connect this terminal to the DRAM $\overline{\text{WE}}$ signal terminal.
36	XCAS2/MA9	O	Use this terminal when 8-Mbit DRAM is connected. Connect this terminal to the DRAM $\overline{\text{CAS}}$ signal terminal of the upper words (256K to 512K-1) side when the DRAM system consists of the two DRAMs X 256 X 16 bits (upper bite and lower bite are common). Connect this terminal to the MA9 terminal (common to the two DRAMs) when DRAM system consists of the two DRAMs X 512 Kw X 8 bits.
37	XCAS0	O	This is the DRAM column address strobe signal output. Connect this terminal to the DRAM $\overline{\text{CAS}}$ signal terminal of the lower words (0 to 256 K-1) side when DRAM system consists of the two DRAMs X 256 Kw X 16 bits (upper bite and lower bite are common). Connect this terminal commonly to the DRAM $\overline{\text{CAS}}$ signal terminal in all connections other than the above described connection.
38-43, 46-55	MD0-MD15	I/O	DRAM data signal input/output terminal. These terminals must be connected to the DRAM data terminals in the way that the terminal numbers match each other.
44	VDD	—	Power supply.

Pin No.	Pin Name	I/O	Description
45	VSS	—	GND.
56	OSDEN	I	OSD enable signal terminal. Polarity to enable the OSD can be changed by setting the register.
57-59	OSDB, OSDG, OSDR	I	OSD data input terminal. The color that is registered in the color table and specified by the three inputs (3 bits), is output when the signal that is input to the OSDEN terminal is in the enable state.
60	VDD	—	Power supply.
61	VSS	—	GND.
62	XVOE	I	Video output enable signal terminal. When this terminal is set to “L”, the picture data output and the DCLK output are enabled. When this terminal is set to “H”, they are disabled (high impedance). In order to make the output enable, the setting of the output control register must also be set to the enable state.
63-70	R/Cr0-R/Cr7	O	Picture data output terminal. Output data formats (RGB, YCbCr) and correspondence between terminals and output data can be changed by the register setting.
71-73, 76-80	G/Y0-G/Y2, G/Y3-G/Y7	O	
81-88	B/Cb0-B/Cb7	O	
74	VDD	—	Power supply.
75	VSS	—	GND.
89	DCLK	I/O	Dot clock (DCLK) signal terminal. The DCLK frequency is normally 13.5 MHz. The DCLK signal can be input from this terminal or can be output from this terminal after dividing-frequency of the clock input.
90	VDD	—	Power supply.
91	VSS	—	GND.
92	HSYNC	I/O	Horizontal sync signal terminal. When the internal sync generator is used, the horizontal sync signal that is obtained by frequency-dividing the dot clock (DCLK) is output. When the internal sync generator is not used, the external horizontal sync is input to this terminal.
93	VSYNC	I/O	Vertical sync signal terminal. When the internal sync generator is used, the vertical sync signal that is obtained by frequency-dividing the dot clock (DCLK) is output. When the internal sync generator is not used, the external vertical sync is input to this terminal.
94	FID/FHREF	I/O	This terminal is used for the two signals of the field identification signal (FID) and the horizontal sync phase reference signal (FHREF). Use of this terminal is determined by the register setting. When set to FID, this terminal is used as output terminal when the internal sync generator is used, and is used as input terminal when the internal sync generator is not used. “H” correspond to the odd fields. When this terminal is set to FHREF, the horizontal sync phase reference signal that is obtained by frequency-dividing XTL0, is output. When XTL0 is 8 fsc, the signal that corresponds to H. SYNC cycle is generated that can be used for phase comparison with the H. SYNC signal.

Pin No.	Pin Name	I/O	Description
95	CBLNK/FSC	I/O	This terminal is used for the two signals of the composite blanking signal (CBLNK) and the fsc signal. Use of this terminal is determined by the register setting. When set to CBLNK, this terminal is used as output terminal when the internal sync generator is used, and is used as input terminal when the internal sync generator is not used. When set to fsc, the signal that is obtained by dividing-frequency of XTL0 is output. The dividing ratio of either 1/8 or 1/16 can be selected.
96	CSYNC	O	Composite sync signal terminal. The composite sync signal is generated by frequency-dividing the DCLK signal. This terminal cannot accept any inputs.
97	XSGRST	I	Sync signal generator reset signal input. The internal generator is initialized by setting this terminal to “L”.
98	CLK0O	O	The clock signal that is obtained by frequency-dividing XTL0 is output from this terminal. Dividing ratio of either 1, 1/2, 1/4 or 1/8 can be selected.
99	DOUT	O	Audio digital output terminal.
100	DATO	O	Audio serial data output terminal to DAC.
101	LRCO	O	L/R clock output terminal to DAC.
102	BCKO	O	Bit clock output terminal to DAC.
103	FSXI	I	Clock input for audio interface. Input the 256fs (11.2896 MHz), 384fs (16.9344 MHz), 512fs (22.5792 MHz) or (33.8688 MHz) etc., to this terminal.
104	VDD	—	Power supply.
105	VSS	—	GND.
106, 107	XTL2O, XTL2I	O/I	Master clock terminal of the CD-ROM decoder and audio decoder. Either input the clock signal to XTL2I or connect an external oscillator between XTL2I and XTL2O. Recommended frequency is 45 MHz. This clock serves for internal circuit only, and is not synchronized with the input and output signals.
108	VDD	—	Power supply.
109	C2PO	I	This is the terminal to input the C2 pointer from CD-DSP. It indicates that the DATI input has an error.
110	LRCI	I	This is the terminal to input the LR clock from CD-DSP. It indicates if it is L channel or R channel.
111	DATI	I	This is the terminal to input the serial data from CD-DSP..
112	BCKI	I	This is the terminal to input the bit clock from CD-DSP. This is the clock to strobe the DATI input.
113	DOIN	I	This is the terminal to input the digital data from CD-DSP.
114	XHCS	I	This is the terminal of the chip select input signal during register access.
115	XHDT	I/O	This is the terminal to output the wait signal during register access. This terminal outputs the unique wait signal that is generated or not generated by the register, during DRAM access when the host interface is in the parallel mode. The pull up resistor is required since this terminal operates in the open drain configuration. Use the pull up resistor in the serial mode operation too.
116	HRW	I	This terminal receives the R/$\overline{W}$ input signal when the host interface is in the parallel mode. This terminal receives the serial clock input during the serial mode.

Pin No.	Pin Name	I/O	Description
117	XHIRQ	O	This is the interrupt request signal output terminal. The pull up resistor is required since this terminal operates in the open drain configuration.
118	XRST	I	This is the hardware reset signal input terminal. All operations are initialized when this terminal is set to “L”.

IC, CXP84548

Pin No.	Pin Name	I/O	Description
1	CLV-W	I	Fixed to CLV-W: 1, CLV-N.
2	HSTSTP	O	Cause of STOP. 1: STOP by the stop request from the host.
3	VCD	O	DISC type. 1: When no in the VCD DISC
4	XRST	O	SSP/DSP reset output. Reset at “L”.
5	XHRST	O	CXD1856 reset output. Reset at “L”.
6	HA0	O	Title back: Connected to CXD1856 HA0.
7	HA1	O	Title back: Connected to CXD1856 HA1.
8	HA2	O	Title back: Connected to CXD1856 HA2.
9	HA3	O	Title back: Connected to CXD1856 HA3.
10	HXCE	O	Connected to title back ROM XCE.
11	HRW	O	Connected to bus select DIR, CXD1586 HRW.
12	BUS	O	Connected to bus select XG.
13	HCLK	I/O	Clock for address count.
14	HD0	I/O	Title back bus data 0.
15	HD1	I/O	Title back bus data 1.
16	HD2	I/O	Title back bus data 2.
17	HD3	I/O	Title back bus data 3.
18	HD4	I/O	Title back bus data 4.
19	HD5	I/O	Title back bus data 5.
20	HD6	I/O	Title back bus data 6.
21	HD7	I/O	Title back bus data 7.
22		O	Open.
23	PICT	O	Title back bank select. (Connected to A16).
24	HRST	O	Address counter RST output.
25	VRST	O	RL5C293 reset output. Reset at “L”.
26	PALMD	O	PAL mode output. NTSC: L, PAL: “H”.
27	PAL60	O	PAL mode output. H: PAL60 (used together with PALMD: H)
28	XHDT	I	Connected to CXD1856 XHDH.
29	XHCS	O	Connected to CXD1856 XHCS.
30	XRST	I	Reset input.
31	EXTAL	I	External 12 MHz ceramic oscillator is connected to this terminal.
32	XTAL	O	External 12 MHz ceramic oscillator is connected to this terminal.
33	VSS	I/O	Connected to ground.
34		O	Open.
35		O	Open.
36	AVSS		Connected to ground.
37	AVREF		Connected to power supply + 3.3 V.
38	OSDDT	O	OSD serial, data output.
39	OSDXCS	O	OSD serial, CS output.
40	OSDCLK	O	OSD serial, clock output.
41	TRSRVO	I	Tracking servo ON/OFF. 1: ON, 0: OFF.

Pin No.	Pin Name	I/O	Description
42	HALT	I	HALT input. 1: HALT detected (A/D conversion value is 80 H or higher).
43	LSW	I	Pick up inside switch input. “L” when INSIDE is detected.
44	EMPH	I	Emphasis input. ON only (CD-DA) at “H”.
45	VMODE	I	NTSC/PAL AUTO/PAL selection. (Analog input).
46	O-BUSY	O	Busy input to host microprocessor.
47	I-BUSY	I	Busy output from host microprocessor.
48	CLOCK	I	Host microprocessor, clock input.
49	COMMAND	I	Host microprocessor, data input.
50	STATUS	O	Host microprocessor, data output.
51	SQCK	O	Clock output for reading SQSO.
52	SQSO	I	Inputs such as SUBQ, PCM, DATA, level data, status and others.
53		O	Open.
54	FOK	I	FOK input.
55	GFS	I	GFS input.
56	SENS2	I	SENS 2 input.
57	SENS	I	DSP SENS input.
58	MD2	O	DSP DIGITAL OUT MUTE output. ON at “H”.
59	RBPLS	O	Tracking balance fraction data output. (A+B)/2.
60	VSYNC	I	V. SYNC input.
61	SCOR	I	Subcode sync input. “H” during S0,S1 input.
62	HIRQ	I	Connected to CXP1856 HIRQ.
63	CNIN	I	C input.
64	CLOK	O	Clock output to CD DSP.
65		O	Open.
66	DATA	O	Data output to CD DSP.
67	XLAT	O	XLAT output to CD DSP.
68	AMUTE	O	LINE OUT MUTE output. Mute at “H”.
69	DMUTE	O	DSP mute output. Mute at “H”.
70	VMUTE	O	RL5C293 sleep output. Normally “L” / Sleep at “H”.
71	DEEM	O	Deemphasis output. Deemphasis ON at “H”.
72	VDD		Connected to power supply +3.3 V.
73	NC		Open.
74		O	Open.
75		O	Open.
76		O	Open.
77		O	Open.
78	SH	I	Pick that is equipped with shutter. 1: With shutter.
79	AUTO	I	Auto adjustment YES/NO. 1: Auto adjustment YES.
80	DISP	I	Auto adjustment value indication. 1: Indicated.

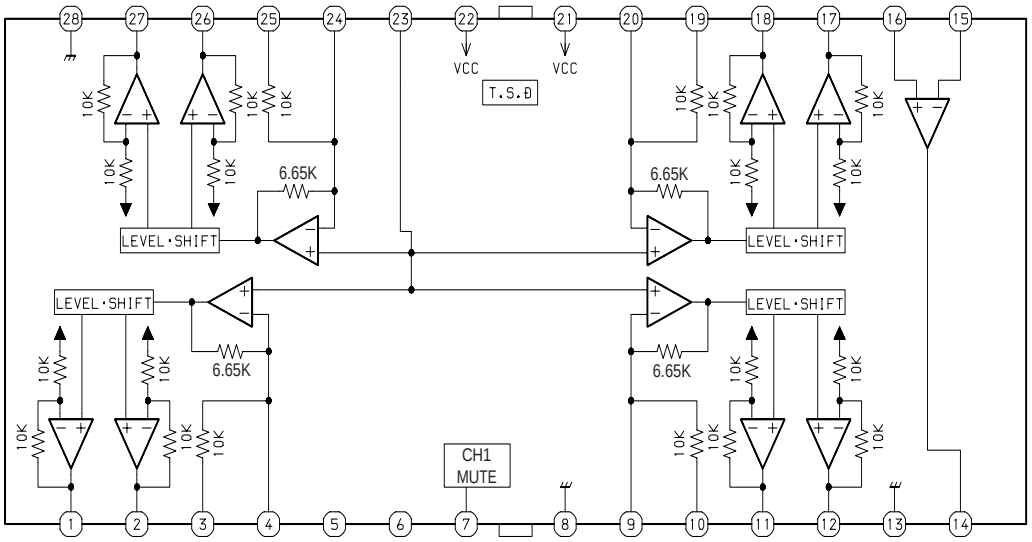
Pin No.	Pin Name	I/O	Description
1	VCOIN	I/O	Charge pump output/VCO input terminal (Connect an external capacitor for loop filter, to this terminal).
2, 19, 39, 59	GND	—	Digital ground.
3	PALMODE	I	Video mode selection control terminal (LVTTL level). NTSC mode when PALMODE = 0. PAL mode when PALMODE = 1.
4	MASTERB	I	Video sync mode selection control terminal (LVTTL level). Internal sync mode when MASTERB = 0. External sync mode when MASTERB = 1. However, when CDGMODE = 1, mode is fixed to the external sync mode regardless of MASTERB status so that the MASTERB terminal functions the switch selecting either 262 (NTSC) or 312 (PAL) scanning line when MASTER B = 1, or 263 (NTSC or 313 (PAL) scanning line when MASTER B = 0, in the non-interlaced scanning. (See page 10) (This terminal has the pull-up function).
5	RESETB	I	Reset input terminal (LVTTL level). Enter the reset state when this terminal is set to “L”.
6-13	B7-B0	I	The data B input terminal (LVTTL level). Data input range is from 16 to 235, or from 0 to 255 (as controlled by the DICNT terminal) When FORM = 0, connect this terminal to ground.
14	TESTI0	I	Test input terminal Enters the test mode when TESTI0 = 1. Connect this terminal to ground or set it open.
15	PXCLK	I	Pixel clock input terminal (LVTTL level). When inputting the pixel clock, select the input pixel clock frequency that is appropriate for the respective modes. (See page 7.) Frequency accuracy of the subcarrier signal of the video signal depends on that of this clock signal. Therefore, determine the frequency accuracy of the pixel clock according to the required accuracy of the subcarrier signal.
16, 30, 63	VCC	—	Digital block power supply (+3.3 V or +5 V).
17	HSYNCB	I/O	Horizontal sync signal input/output terminal (LVTTL level). This terminal functions as the input terminal during the external sync mode, and as the output terminal during the internal sync mode. During the external sync mode, the input sync signal is sampled by PXCLK and only the fall-down edge is detected. The standard cycle of HSYNCB is 858 clock (VCD_NTSC) or 864 clock (VCD_PAL). (For CDG mode, see page 9.) This terminal functions as the output terminal during the internal sync mode.
18	VSYNCB	I/O	Vertical sync signal input/output terminal (LVTTL level). This terminal functions as the input terminal during the external sync mode, and as the output terminal during the internal sync mode. During the external sync mode, the input sync signal is sampled by PXCLK and the fall-down edge is detected. When the fall-down edges of HSYNCB and VSYNCB agree, the timing is judged to be the start of the ODD field. When they do not agree, the timing is judged to be the start of the EVEN field. This terminal functions as the output terminal during the internal sync mode.
20	FORM	I	Input format selection terminal (LVTTL level). When FORM = 0, the input format is CCIR-601YCbCr (4 : 2 : 2) . When FORM = 1, the input format is RGB input. (This terminal has the pull-up function).

Pin No.	Pin Name	I/O	Description
21	TRAPFEN	I	Internal trap filter control terminal (LVTTL level). Trap filter display is disabled when TRAPFEN = 0. Trap filter is enabled when TRAPFEN = 1. (This terminal has the pull-up function).
22-29	G7-G0	I	The G data or Y data input terminal (LVTTL level). The data input range is from 16 to 235 or from 0 to 255 in the case of the G data (as controlled by the DICNT terminal), and the data input range is from 16 to 235 in the case of the Y data.
31-38	R7-R0	I	The R data or CbCr data input terminal (LVTTL level). The data input range is from 16 to 235 or from 0 to 255 in the case of the R data (as controlled by the DICNT terminal), and the data input range is from 16 to 240 in the case of the CbCr data.
40	CLKOUT	O	Clock output terminal Clock output of the doubled frequency of PXCLK when CLKMODE = 0. Clock output of 1/2 the frequency of PXCLK when CLKMODE = 1.
41	FLDOUT	O	Field indication signal output terminal Outputs “H” when the field is the ODD field. Outputs “L” when the field is the EVEN field. Polarity of the terminal becomes invalid during the external sync mode.
42	OSDCLK	O	Clock output terminal for OSD_IC The clock signal having 1/2 the frequency of the input PXCLK frequency is output when CLKMODE = 0. The clock signal having 1/4 the frequency of the input PXCLK frequency is output when CLKMODE = 1. (See page 6.)
43	DICNT	I	The video data input control terminal (LVTTL level). Set this terminal to DICNT = 0 normally. When DICNT = 1 is set, the data input range of RGB can be expanded to the range of 0 to 255 on the condition that FORM = 0. When FORM = 1, the Cb data can be input starting from the odd cycle. (See page 8.) (This terminal has the pull-up function).
44	SLEEP	I	The SLEEP mode control terminal (LVTTL level). Normal operation mode is selected when SLEEP = 0. The SLEEP mode is selected when SLEEP = 1.
45	AVCC	—	Analog block power supply (+5 V).
46, 47, 50	NC	—	Be sure to set this terminal to open.
48	VIDEO	O	Analog video output terminal (This terminal is driven in 37.5 Ω).
49	IREF	—	An external resistor is connected to this terminal, that sets the full scale output current value.
51	COMP	—	An external de-coupling capacitor is connected to this terminal, that is used for phase compensation.
52, 53	AGND	—	Analog ground.
54	PAL4FSC	I	CDG_PAL4FSC mode selection control terminal. (LVTTL level). Status of this PAL4FSC terminal is made valid only when PALMODE = 1 and CDGMODE = 1. The mode is the CDG_PAL908fH mode when PAL4FSC = 0. The mode is the CDG_PAL4FSC mode when PAL4FSC = 1.
55-57	OSD2-OSD0	I	The input terminal to specify the OSD color. (LVTTL level). This input signal sampled by PKCLK and is encoded instead of the data supplied from the RGB input terminal when VSW = 1. When the OSD function is not used, connect this terminal to ground.

Pin No.	Pin Name	I/O	Description
58	VSW	I	The OSD background video control terminal. (LVTTL level). This input signal sampled by PXCLK and displays the data that is supplied from the RGB input terminal when VSW = 0, and displays the data that is supplied from the OSCD 0-2 input terminal when VSW = 1.
60	CDGMODE	I	The CDG mode selection control terminal. (LVTTL level). The VCD mode is selected when CDGMODE = 0. The CDG mode is selected when CDGMODE = 1. (See page 9.) (This terminal has the pull-up function).
61	PAL60	I	The PAL60 mode selection control terminal. (LVTTL level). Set this terminal to PAL60 = 0 normally. The PAL60 mode is selected when PALMODE = 1 and PAL60 = 1 at the same time. The setting of PALMODE = 0 and PAL60 = 1 is reserved. (See page 9.) (This terminal has the pull-up function).
62	CLKMODE	I	The pixel rate frequency input selection terminal. (LVTTL level). The pixel rate frequency is input to the PXCLK terminal when CLKMODE = 0. The double pixel rate frequency is input to the PXCLK terminal when CLKMODE = 0. (See page 7.) (This terminal has the pull-up function).
64	PLLGND	—	PLL ground.

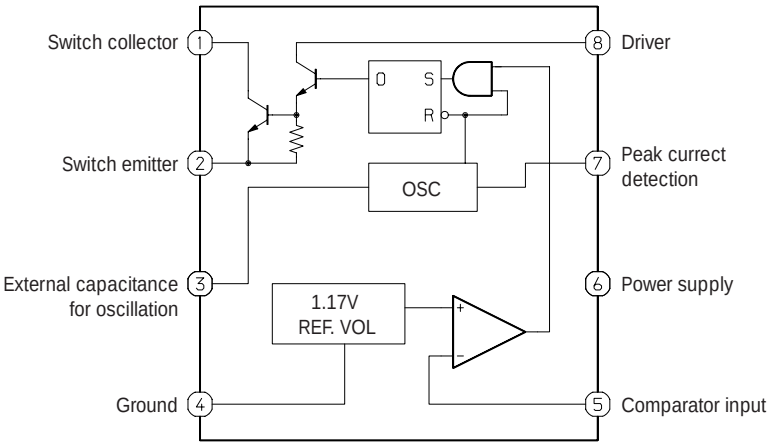
IC BLOCK DIAGRAM

IC, BA5915FP

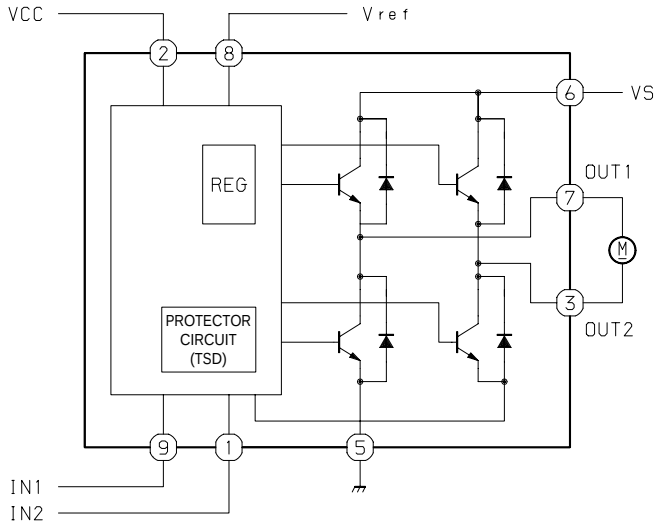


T.S.D: Thermal shut-down
Resistors are in units of Ω.

IC, M5291FP



IC, TA7291S

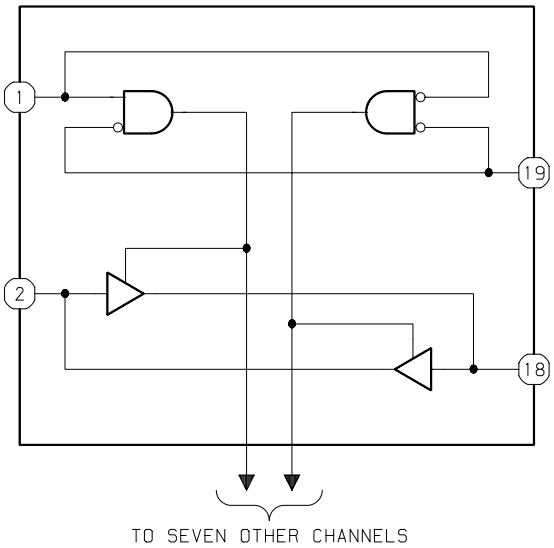


INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

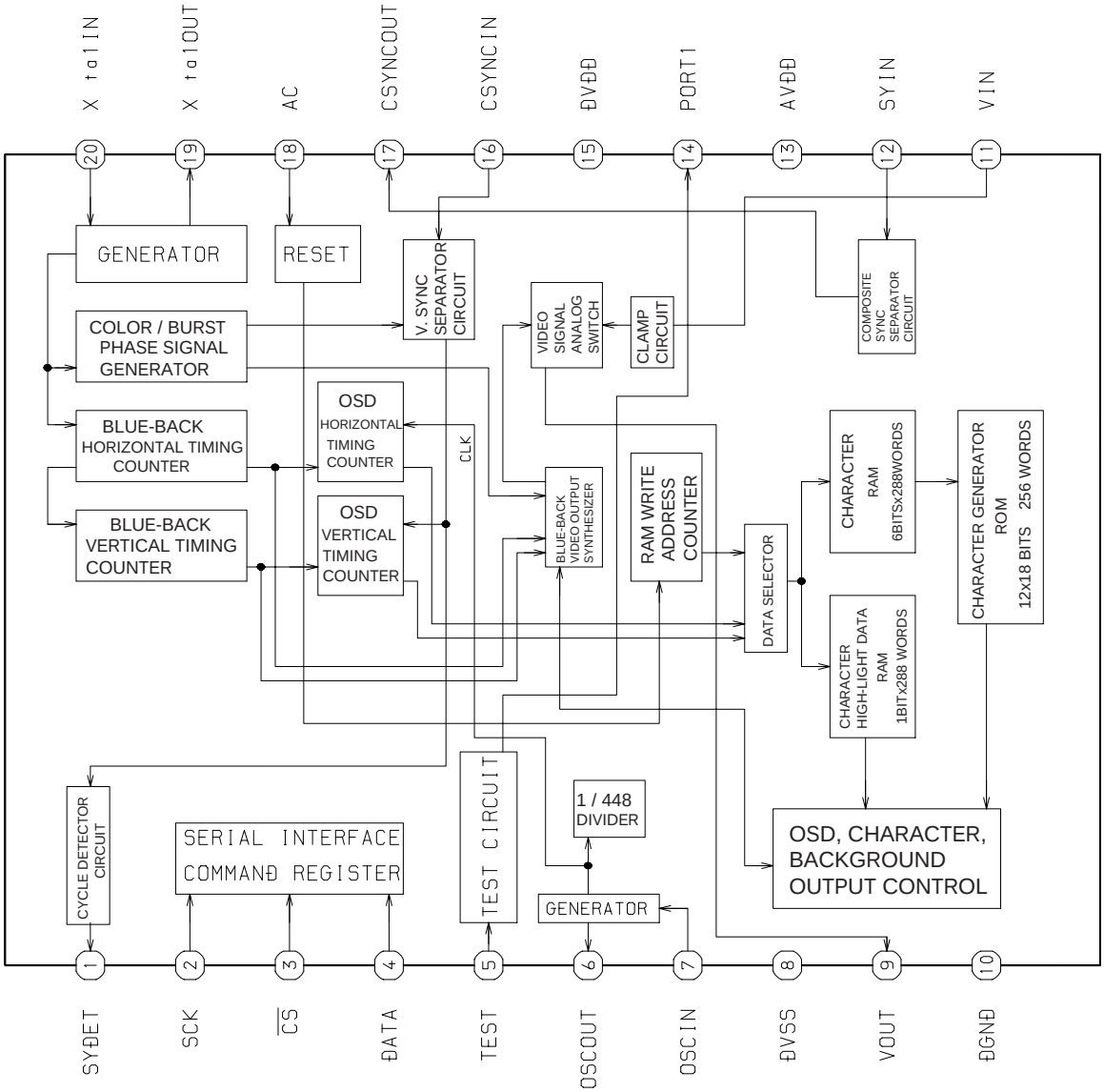
∞ : HI IMPEDANCE

NOTE : INPUT "H" ACTIVE

IC, SN74LV245A

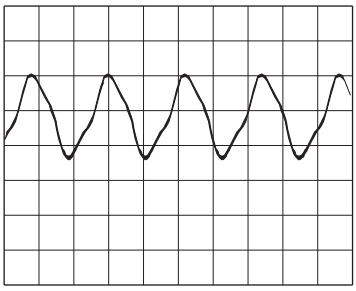


IC, BU2874AFV

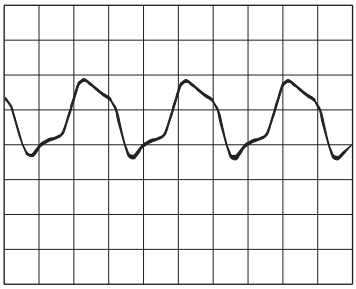


WAVE FORM

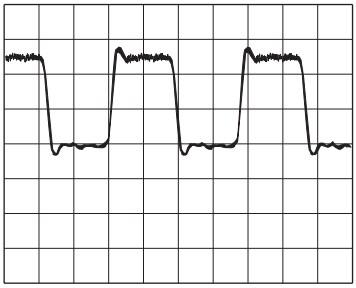
① IC905 Pin ⑯ (XTL20)
VOLT/DIV: 2V
TIME/DIV: 10nS



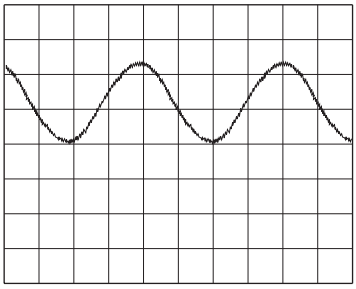
② IC905 Pin ② (XTL00)
VOLT/DIV: 2V
TIME/DIV: 10nS



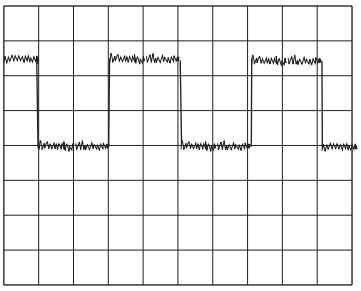
③ IC906 Pin ⑥
VOLT/DIV: 2V
TIME/DIV: 20nS



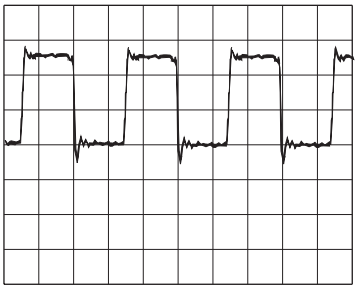
④ IC901 Pin ㉛ (EXTAL)
VOLT/DIV: 2V
TIME/DIV: 20nS



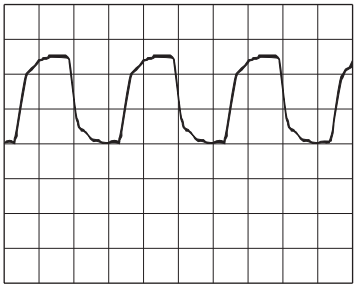
⑤ IC851 Pin ㊶ (FLDOUT)
VOLT/DIV: 2V
TIME/DIV: 10mS



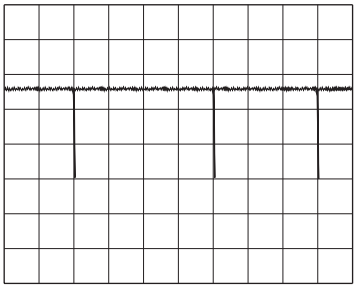
⑥ IC851 Pin ㊷ (O22SDCLK)
VOLT/DIV: 2V
TIME/DIV: 50nS



⑦ IC801 Pin ③ (CKO)
VOLT/DIV: 2V
TIME/DIV: 20nS

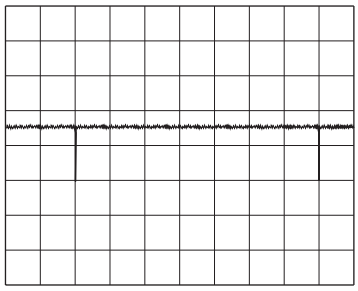


⑧ IC952 Pin ⑪ (B8)
VOLT/DIV: 2V
TIME/DIV: 1mS



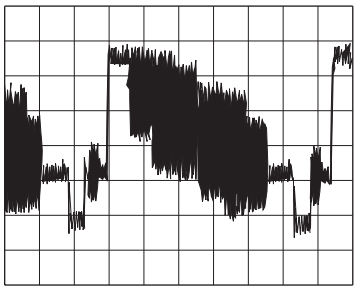
⑨ IC952 Pin ⑨ (A8)

VOLT/DIV: 2V
TIME/DIV: 1mS



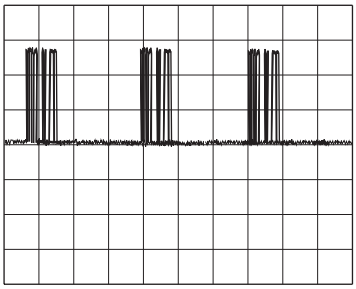
IC851 Pin ⑥① (PAL60)
PAL DISC PAL

VOLT/DIV: 200mV
TIME/DIV: 10µS



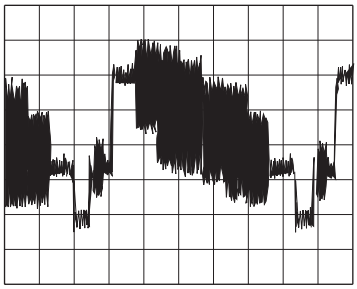
⑩ IC931 Pin ⑮ (VBLK)

VOLT/DIV: 2V
TIME/DIV: 20µS



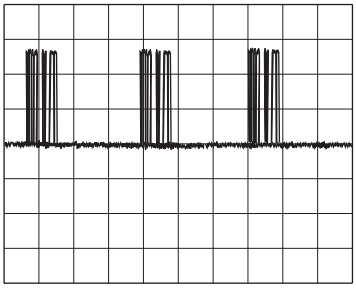
IC851 Pin ⑥① (PAL60)
NTSC DISC PAL AUTO

VOLT/DIV: 200mV
TIME/DIV: 10µS



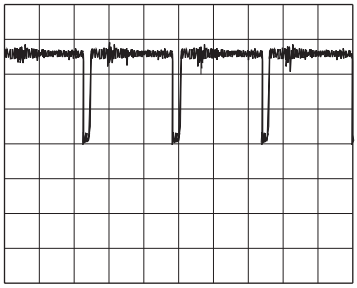
⑪ IC931 Pin ⑱ (VB)

VOLT/DIV: 2V
TIME/DIV: 20µS



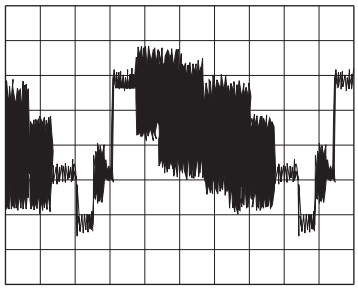
⑬ IC851 Pin ⑰ ($\overline{\text{H SYNC}}$)
NTSC

VOLT/DIV: 2V
TIME/DIV: 50µS



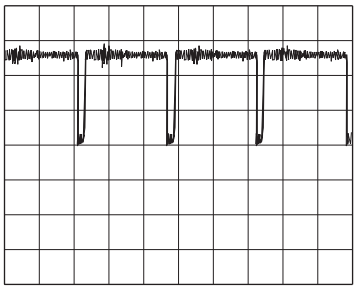
⑫ IC851 Pin ⑥① (PAL60)
NTSC DISC NTSC

VOLT/DIV: 200mV
TIME/DIV: 10µS



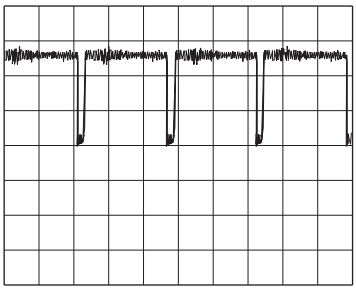
IC851 Pin ⑰ ($\overline{\text{H SYNC}}$)
PAL AUTO

VOLT/DIV: 2V
TIME/DIV: 50µS



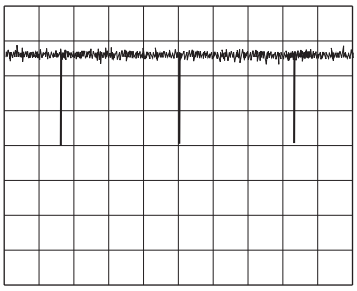
IC851 Pin ⑰ ($\overline{\text{H SYNC}}$)
PAL

VOLT/DIV: 2V
TIME/DIV: 50µS



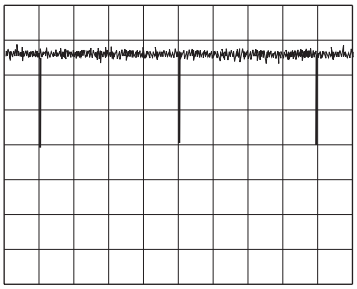
IC851 Pin ⑱ ($\overline{\text{V SYNC}}$)
PAL

VOLT/DIV: 2V
TIME/DIV: 10mS



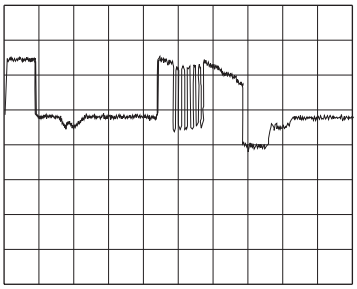
⑭ IC851 Pin ⑱ ($\overline{\text{V SYNC}}$)
NTSC

VOLT/DIV: 2V
TIME/DIV: 10mS



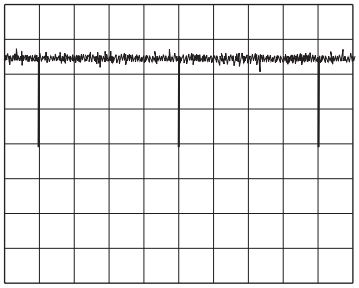
⑮ CN6 Pin ⑪ (O-DISH, SENS)

VOLT/DIV: 2V
TIME/DIV: 200mS



IC851 Pin ⑱ ($\overline{\text{V SYNC}}$)
PAL AUTO

VOLT/DIV: 2V
TIME/DIV: 10mS



TEST MODE

1. How to Activate CD Test Mode
   Insert the AC plug while pressing the function CD button.
   FL display tubes will show the “start mode” display (repeating the indications “TEST” and “00 00 00” alternately), and the test mode will be activated.

2. How to Cancel CD Test Mode
   Either one of the following operations will cancel the CD test mode.
   - Press the function button. (except CD function button)
   - Press the power switch button.
   - Disconnect the AC plug

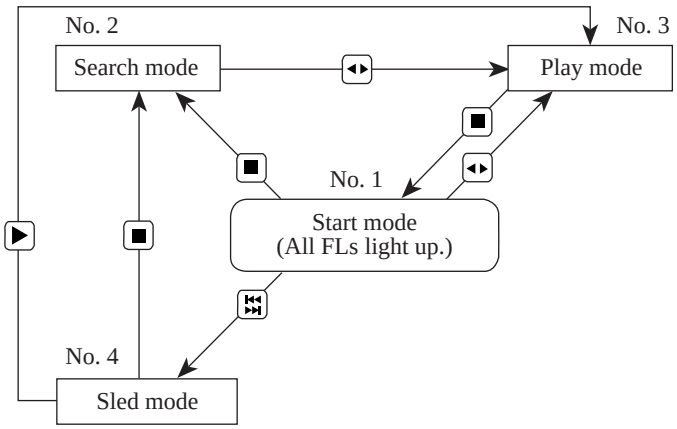
3. Description of the CD Test Mode Functions
   When test mode is activated, the following mode functions from No. 1 to No. 4 can be used by pressing the operation keys.

   [Values of Focus Balance, Tracking Balance and Tracking Gain]
   The displayed contents show the actual value after flashing three times.

Mode/No.	Operation	FL dispaly	Operation	Contents
Start mode No.1	Activation	Start mode dispaly	• Test mode is activated. • CD block power is ON.	• Automatic adjustment value
Search mode No.2	■ key	“ ”	• Laser diode turns always ON. • Continual focus search (The pickup lens repeats the full-swing up-down motion.) * Avoid continual searches that last for more than 10 minutes. * NOTE 1	• APC circuit check • Laser current measurement (Laser current control. Across a resistor connected between emitter and GND.) FOCUS SERVO • Check focus search waveform • Check focus error waveform (FOK/FZC are not monitored in the search mode)
Play mode No.3	◄ ► key	Normal display	• Normal playback	FOCUS SERVO/TRACKING SERVO CLV SERVO/SLED SERVO Check DRF
Sled mode No.4	⏮ key ⏭	Start mode display	• Pickup moves to the outermost track • Pickup moves to the innermost track * NOTE 2 (During playback, machine operates normally.)	SLED SERVO Check SLED mechanism operation

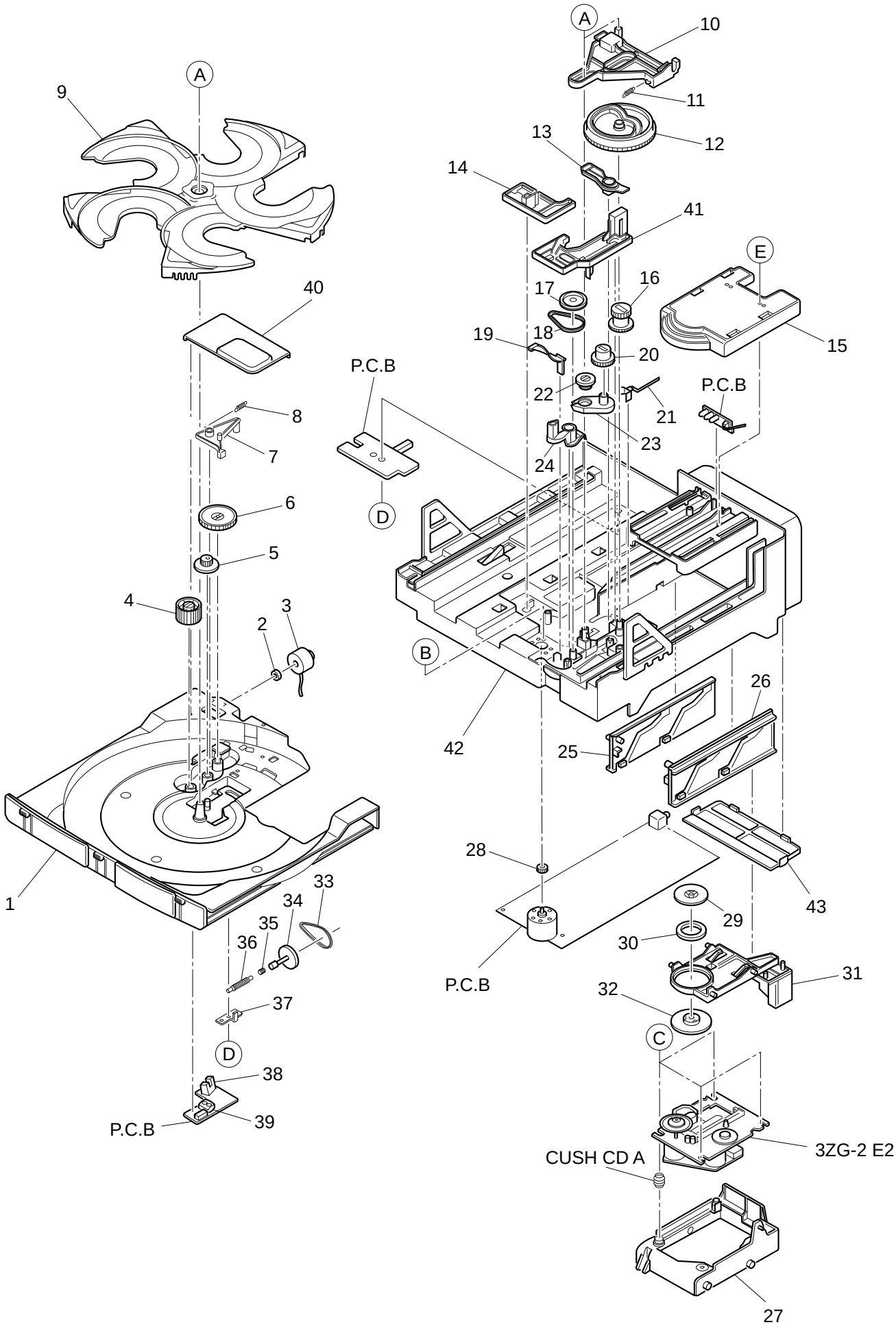
* NOTE 1: There are cases when the tracking servo cannot be locked owing to the protection circuit being operated when heat builds up in the driver IC if the focus search is operated continually for more than 10 minutes. In these cases the power supply should be switched off for 10 minutes until heat has been reduced and then re-started.
* NOTE 2: When pressing the ⏮ or ⏭ keys, take care to avoid damage to the gears. Because the sled motor is activated when the ⏮ or ⏭ keys are pressed, even when the pick-up is at the outermost or innermost track.
* NOTE 3: The machine cannot enter the traverse mode even though the PAUSE button is pressed during PLAY. It enters the normal PAUSE state.

4. Operation Outline
   The operation of each mode is carried out in the direction of the arrows from the start mode as indicated in the following illustration.



If the DISC DIRECT PLAY button is pressed, the machine performs the same operation as the PLAY button is pressed as shown. If the tray is opened by pressing OPEN/CLOSE button during Play mode or Traverse mode, the machine returns to the Start mode.

MECHANICAL EXPLODED VIEW 1/1

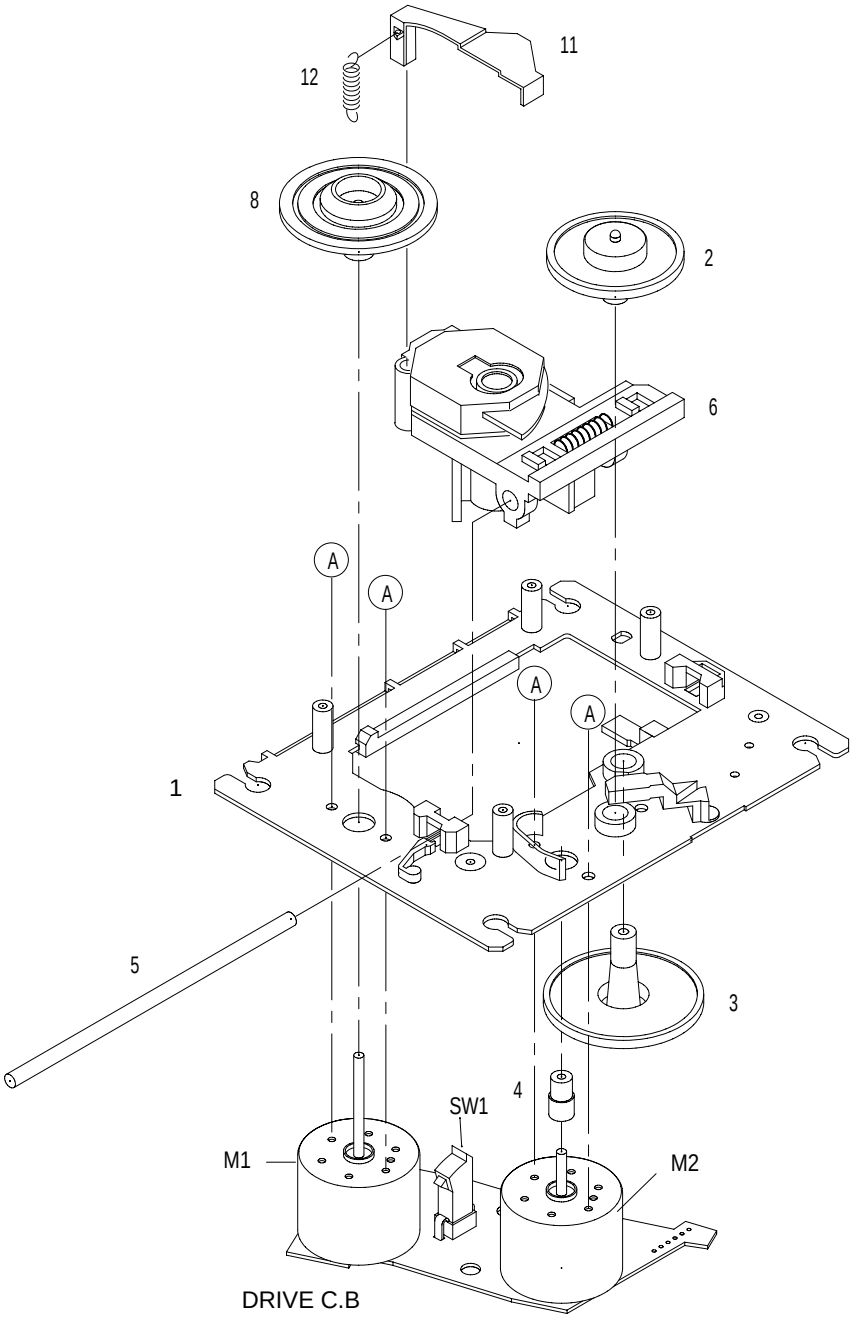


MECHANICAL PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	86-ZG1-001-310		TRAY,5CD
2	81-ZG1-212-010		PULLY,LOAD MO
3	87-A90-036-010		MOT ASSY,RF-300CA-11
4	86-ZG1-228-110		GEAR,TT-B
5	86-ZG1-227-110		GEAR,TT-A
6	86-ZG1-223-110		GEAR,WORM-WHEEL TT
7	86-ZG1-224-110		LEVER,TT(*)
8	86-ZG1-226-010		SPR-E,LEVER TT
9	86-ZG1-002-210		TURN TABLE,5CD
10	86-ZG1-211-210		JOINT,CAM
11	86-ZG1-216-010		SPR-E,JT
12	86-ZG1-203-210		GEAR,MAIN CAM
13	86-ZG1-213-110		LEVER,LOAD
14	86-ZG1-214-110		LEVER,PROTECT
15	86-ZG1-004-010		REFLECTOR,CD
16	86-ZG1-205-110		GEAR,TRAY
17	84-ZG1-207-010		PULLEY,RELAY
18	84-ZG1-209-010		BELT,SQ1.8-117.7
19	86-ZG1-217-010		LEVER,SW
20	86-ZG1-206-110		GEAR,RELAY B
21	86-ZG1-220-110		SPR-P,LOCK
22	86-ZG1-204-110		GEAR,RELAY A
23	86-ZG1-218-110		PLATE,GEAR
24	86-ZG1-208-010		LEVER,TRAY
25	86-ZG1-209-110		SLIDER,CAM L(*)
26	86-ZG1-210-110		SLIDER,CAM R(*)
27	86-ZG1-202-110		HLDR,MECHA
28	84-ZG2-228-010		PULLEY,MOT
29	83-ZG3-211-010		PLATE,DISC
30	83-ZG3-602-010		RING,MAG
31	86-ZG1-215-010		HLDR,CHUCK
32	86-ZG1-238-010		HLDR,MAGNET 6ZG N
33	86-ZG1-225-010		BELT,SQ1.2-32.9
34	86-ZG1-221-010		PULLEY,TT
35	86-ZG1-231-010		SPR-C,WORM
36	84-ZG1-256-010		GEAR,WORM N2
37	86-ZG1-232-010		SPR-P,WORM
38	86-ZG1-229-010		HLDR,SENSOR
39	86-ZG1-230-010		HLDR,DISC SENSOR
40	86-ZG1-003-110		COVER,TRAY
41	86-ZG1-212-310		SLIDER,LOAD
42	86-ZG1-201-210		CHAS,MECHA
43	86-ZG1-005-110		COVER,CHAS
A	87-078-148-010		VFT2+3-12(F10) BLK
B	87-251-072-410		U+2.6-5
C	81-ZG1-254-010		S-SCREW,MECH HLDR
D	87-067-579-010		TAPPING SCREW, BVT2+3-8
E	87-067-703-010		TAPPING SCREW, BVT2+3-10

CD MECHANISM EXPLODED VIEW 1/1



CD MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG2-247-210		CHAS ASSY,SHT5
2	83-ZG2-235-010		GEAR,A3
3	83-ZG2-205-210		GEAR,B
4	83-ZG2-236-010		GEAR MOTOR 3
5	83-ZG2-240-010		SHAFT,SLIDE 3
6	87-A90-836-010		PICKUP,KSS-213F
8	83-ZG2-227-010		TURN TABLE,C1
11	83-ZG2-245-110		LEVER,SHUTTER
12	83-ZG2-250-010		SPR-E,SHT 2
A	87-261-032-210		SCREW V+2-3

USE MODEL LIST

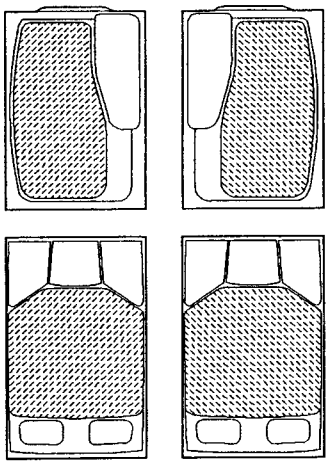
CX-ZKR88
CX-ZKR99
CX-ZKR77
CX-ZKVR8
CX-NKF979

aiwa

AIWA-01987

aiwa SERVICE

SPEAKER



SPEAKER

SERVICE MANUAL

• TYPE: English, Japanese

• This Service manual contains below models.

SX-SLM6	SX-CR321	SX-C300	SX-R210	SX-Z24	SX-Z240	SX-FZ2600
SX-SL300	SX-CR421	SX-C400	SX-R220	SX-Z26	SX-Z260	SX-FZ2700
SX-SL600	SX-CR423		SX-R230	SX-Z27	SX-Z270	SX-FZ3400
SX-SLAP1MK3			SX-R240		SX-Z280	
SX-SL800			SX-R250		SX-Z290	
			SX-R260			

SX-Z2890	SX-AZ2800	SX-ANV900	SX-NV200	SX-FNV500	SX-NAV70
SX-Z3250	SX-AZ3450	SX-ANV8000	SX-NV210	SX-FNV700	SX-NAV80
SX-Z4400			SX-NV300	SX-FNV800	SX-NAV90
SX-Z7400			SX-NV2000		SX-NAV700
SX-Z9400			SX-NV2100		SX-NAV800
			SX-NV3000		SX-NAV900
			SX-NV3001		

SX-N340	SX-NAVH8	SX-ANH9	SX-NK21	SX-NM9	SX-FNH8	SX-FNF7
SX-N410G	SX-NAVH9	SX-ANH90	SX-FNK23	SX-NM820		SX-FNF77
SX-N3200	SX-NAVH80					
SX-N3150	SX-NAVH90					

• SX-CR model's structures are as follows ;

SX-CR321	SX-CR421	SX-CR423
SX-C300 SX-R210	SX-C400 SX-R210	SX-C400 SX-R230

• This SPEAKER service manual is updated, so replace the previous SPEAKER service manual with this manual.

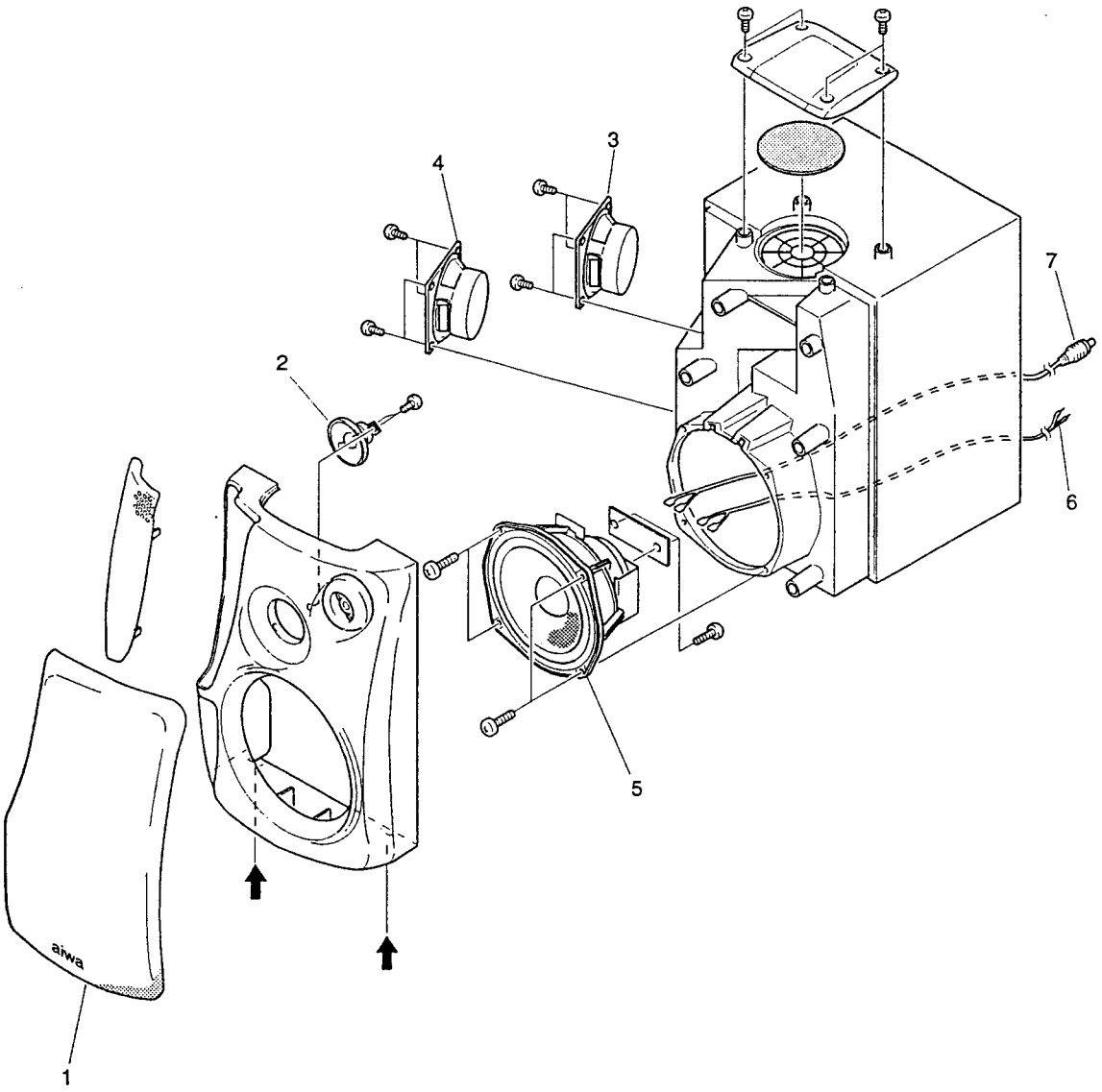
S/M Code No. 09-964-137-8FP

SX-ANV900 / ANV8000<900YJ, 900YL, 8000YU, 900Y, 900YJST, 900YST, 900YA, 900YJ3, 900YJ7>

SPEAKER DISASSEMBLY INSTRUCTIONS

矢印の位置にマイナスドライバーを差し込んで、パネルをはずして、各々のスピーカー・ユニットのビスを取り、スピーカー・ユニットをはずしてください。

Insert a flat - bladed screwdriver into the position indicated by the arrows and remove the panel.
Remove the screws of each speaker unit and then remove the speaker units.



SPEAKER PARTS LIST

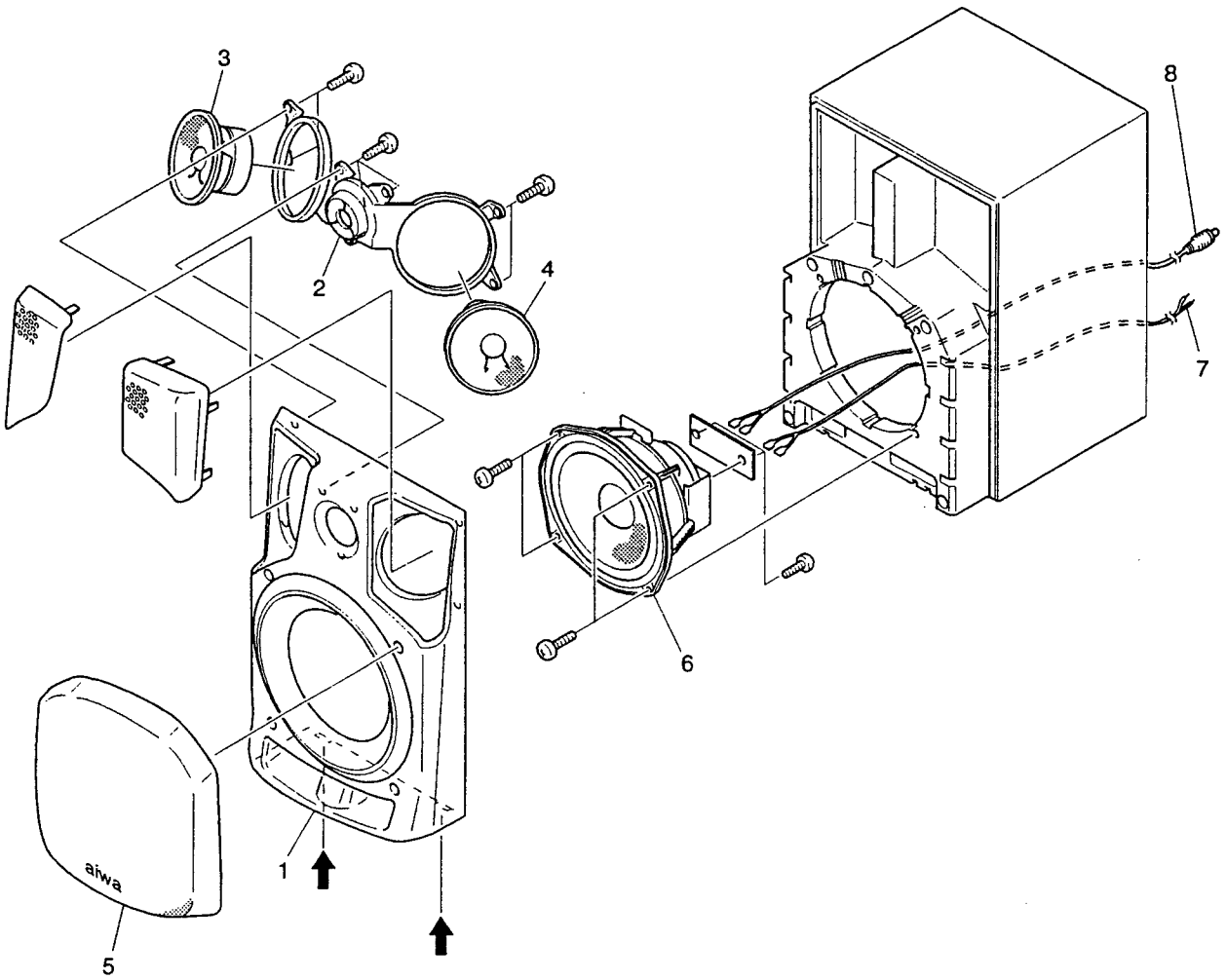
If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NS4-010-019		GRILL FRAME L ASSY
2	86-NS4-009-019		GRILL FRAME R ASSY
3	86-NS4-001-019		PANEL,FR L
4	86-NS4-002-019		PANEL,FR R
5	86-NS4-608-019		SPKR T 50<EXCEPT 8000YU>
6	86-NS4-604-019		SPKR M 80<EXCEPT 8000YU>
7	86-NS4-606-019		SPKR F 80<EXCEPT 8000YU>
8	86-NS4-602-019		SPKR W 140 H<900YJ,900YL,900YJST,900YJ>
8	86-NS4-612-019		SPKR W 140 L<8000YU>
8	86-NS4-610-019		SPKR W 140 M<900Y,900YST,900YA>
9	83-NS5-613-019		SPEAKER CORD ASSY
10	85-NS6-611-019		SPEAKER CORD Y/B

SX-FNV800<YJ, YL, Y, YJST, YABNL, YABN, YJSTCC, YJ3, YST, YJ7BNL, YJ7STL, YSTN>
SPEAKER DISASSEMBLY INSTRUCTIONS

矢印の位置にマイナスドライバーを差し込んで、パネルをはずして、各々のスピーカー・ユニットの
ビスを取り、スピーカー・ユニットをはずしてください。

Insert a flat - bladed screwdriver into the position indicated by the arrows and remove the panel.
Remove the screws of each speaker unit and then remove the speaker units.



SPEAKER PARTS LIST

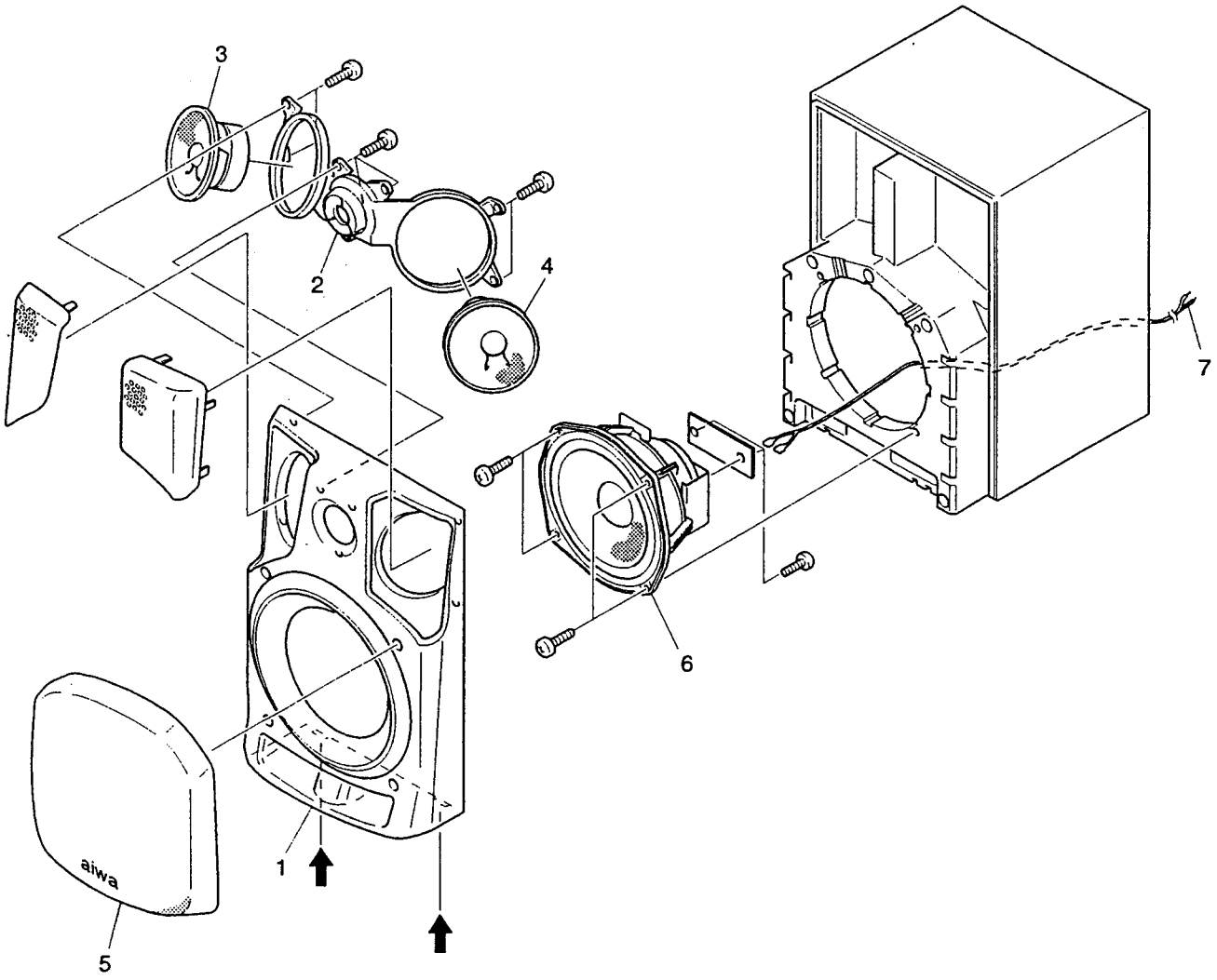
If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NS5-001-019		PANEL FR<EXCEPT YJST,YJSTCC,YST,YJ7STL,YSTN>
1	86-NS5-027-019		PANEL FR ST<YJST,YJSTCC,YST,YJ7STL,YSTN>
2	86-NS5-028-019		HLDR SQ ASSY
3	86-NS5-604-019		SPEAKER TWEETER
4	86-NS5-606-019		SPEAKER
5	86-NS5-007-019		GRILL FRAME ASSY
6	86-NS5-602-019		SPEAKER WOOFER<EXCEPT YABNL,YST>
6	86-NS6-602-019		SPEAKER WOOFER<YABNL,YST>
7	83-NS5-613-019		SPEAKER CORD ASSY
8	85-NS6-611-019		SPEAKER CORD Y/B

SX-FNV500 / FNV700 / FNK23<500YL, 700Y, 700YJ, FNK23YJST>
SPEAKER DISASSEMBLY INSTRUCTIONS

矢印の位置にマイナスドライバーを差し込んで、パネルをはずして、各々のスピーカー・ユニットのビスを取り、スピーカー・ユニットをはずしてください。

Insert a flat - bladed screwdriver into the position indicated by the arrows and remove the panel.
Remove the screws of each speaker unit and then remove the speaker units.



SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NS5-001-019		PANEL FR
2	86-NS5-028-019		HLDR SQ ASSY
3	86-NS5-604-019		SPEAKER TWEETER
4	86-NS5-606-019		SPEAKER
5	86-NS5-007-019		GRILL FRAME ASSY
6	86-NS5-608-019		SPEAKER WOOFER<700YJ,500YL>
6	86-NS6-602-019		SPEAKER WOOFER<700Y,FNK23YJST>
7	85-NS6-611-019		SPEAKER CORD Y/B

SPEAKER DISASSEMBLY INSTRUCTIONS

NOTE : Refer this disassembly instructions when servicing models for SX-FZ3400, SX-Z3250, SX-NV300/ NV3000/NV3001, SX-NAV70/NAV700, SX-NAV90/NAV900 and SX-NAV80/NAV800.

矢印の位置にマイナスドライバーを差し込んで、パネルをはずして、各々のスピーカー・ユニットの
ビスを取り、スピーカー・ユニットをはずしてください。
Insert a flat - bladed screwdriver into the position indicated by the arrows and remove the panel.
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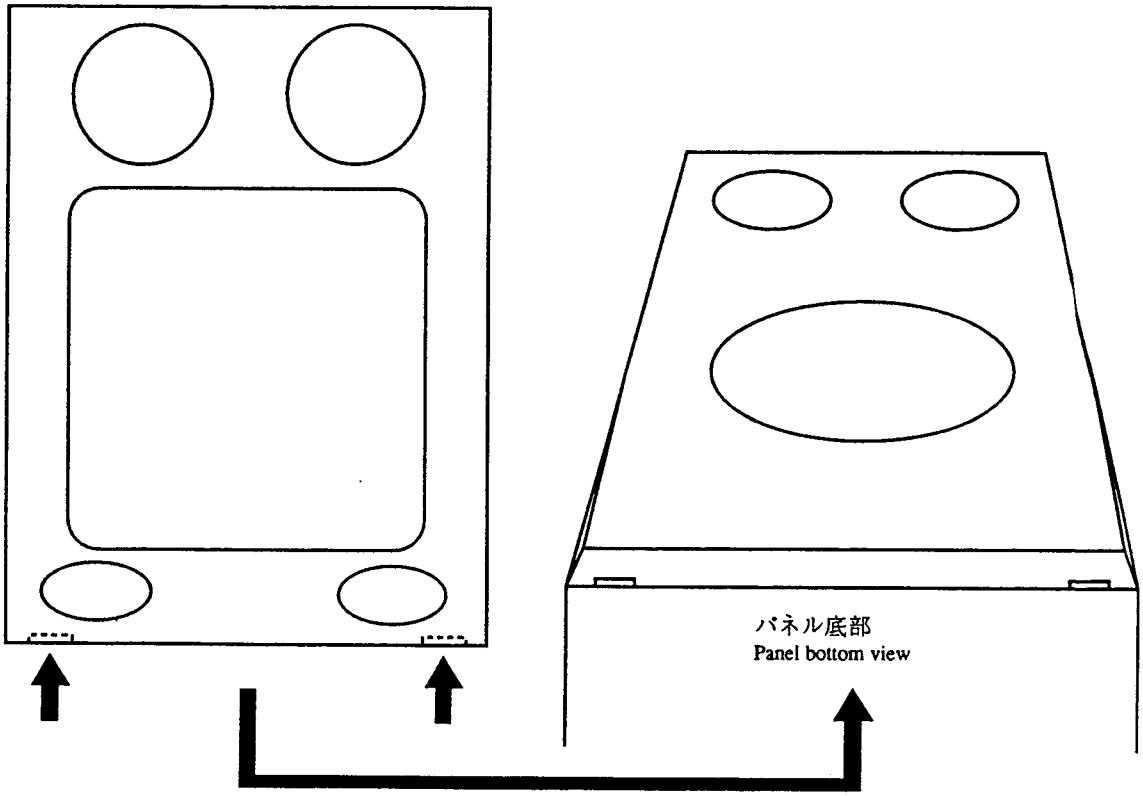

SX-FZ3400<YJ, YL>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-VS2-004-010		PANEL FR
2	86-VS2-006-010		ADAPTOR ASSY
3	86-VS2-601-010		SPEAKER WOOFER
4	83-NS5-608-010		SPEAKER MID H
5	83-NS5-610-010		SPEAKER
6	86-VS2-009-010		GRILL FRAME ASSY
7	85-MS3-610-010		SPEAKER CORD ASSY Y/B
8	84-MS3-611-010		SPEAKER CORD ASSY

SX-Z3250<Y, YJ, YL>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-VS4-006-010		GRILL FRAME ASSY<YJ,YL>
1	85-VS4-012-010		GRILL FRAME ASSY E<Y>
2	85-VS4-001-010		PANEL FR R<YJ,YL>
3	85-VS4-004-010		PANEL FR L<YJ,YL>
4	86-NSS-003-010		PANEL TW ASSY<YJ,YL>
5	86-MSS-602-010		SPEAKER W 220<YJ,YL>
5	85-VS4-601-010		SPEAKER WOOFER<Y>
6	84-VS3-603-010		SPEAKER TW 60<YJ,YL>
6	85-VS4-603-010		SPEAKER TWEETER<Y>
7	85-VS4-605-010		SPEAKER CERAMIC<Y>
8	83-096-614-010		SPEAKER CORD<YJ,YL>

SX-NV300 / NV3000 / NV3001 / NK21 <300YJBNC, 300YLBNC, 300YBNC, 3000YUBNC, 300B, 3001YUWNC, 300YJBNCC, 300YBNY1, 300YJ7, 300YJBNC1, 300YJBNC1C, 3001YUWNT, 3000YUBNT, 300YBNY2, 300YLBNC1, 300YBNC, NK21YJSTNC>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NST-006-010	-	GRILL FRAME ASSY<EXCEPT YUBNC,YUWNC,YUWNT,NK21YJSTNC>
1	86-NSU-016-010		GRILL FRAME ASSY W<YUWNC,YUWNT>
1	86-NSU-006-010		GRILL FREAME ASSY D<EXCEPT YJBNC,YLBNC,YBNC,B,YUWNC,YJ7BNC,YBNY1,YJBNCC,YUWNT,YBNY2>
2	86-NST-001-010	-	PANEL FR R<EXCEPT YUBNC,YUWNC,YUWNT,NK21YJSTNC>
2	86-NSU-004-010		PANEL FR R D<YUBNC,YJBNC1,YJBNC1C,YUBNT,YLBNC1,YBNC1>
2	86-NSU-019-010		PANEL FR R ST<NK21YJSTNC>
3	86-NST-002-010	-	PANEL FR L<EXCEPT YUBNC,YUWNC,YUWNT,NK21YJSTNC>
3	86-NSU-005-010		PANEL FR L D<YUBNC,YJBNC1,YJBNC1C,YUBNT,YLBNC1,YBNC1>
3	86-NSU-020-010		PANEL FR L ST<NK21YJSTNC>
4	86-NSU-602-010		SPEAKER WOOFER<YBNY1,YBNY2>
4	86-NS5-608-010	-	SPEAKER WOOFER<EXCEPT YBNY1,YBNY2>
5	85-NS7-604-010	-	SPEAKER TWEETER<EXCEPT YBNY1,YBNY2>
5	86-NSU-604-010		SPEAKER TWEETER<YBNY1,YBNY2>
6	83-096-614-010	-	SPEAKER CORD
7	82-NSE-610-010	-	CERAMIC
8	83-NS8-009-010	-	DIAPHRAGM

SX-NAV70 / NAV700<70YJ, 70Y, 700YU, 70YSTNC, 70YBNY1, 70YBNY2, 70YSTNY1>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NST-013-010		PANEL FR L ST<YSTNC,YSTNY1>
1	86-NST-002-010		PANEL FR L<YJ,Y,700YU,YBNY1,YBNY2>
2	86-NST-001-010		PANEL FR R<YJ,Y,700YU,YBNY1,YBNY2>
2	86-NST-012-010		PANEL FR R ST<YSTNC,YSTNY1>
3	86-NST-003-010		PANEL BA
4	86-NST-006-010		GRILL FRAME ASSY
5	86-NST-608-010		SPEAKER W 140<YBNY1,YBNY2,YSTNY1>
5	86-NS5-608-010		SPEAKER W 140<Y,700YU,YSTNC>
5	86-NS5-602-010		SPEAKER W 140H<YJ>
6	86-NST-604-010		SPEAKER T 60<YJ,Y,700YU,YSTNC>
6	86-NST-610-010		SPEAKER T 60<YBNY1,YBNY2,YSTNY1>
7	82-NSE-610-010		CERAMIC
8	83-NS8-009-010		DIAPHRAGM
9	83-096-614-010		SPEAKER CORD

SX-NAV90 / NAV900<90YJ, 90Y, 90YST, 900YU>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NSR-005-010		GRILL FRAME ASSY R
2	86-NSR-006-010		GRILL FRAME ASSY L
3	86-NSR-009-010		PANEL FR R<EXCEPT YST>
3	86-NSR-016-010		PANEL FR R ST<YST>
4	86-NSR-010-010		PANEL FR L<EXCEPT YST>
4	86-NSR-017-010		PANEL FR L ST<YST>
5	86-NSR-602-010		SPEAKER W 140 H<EXCEPT Y,YST>
5	86-NSR-606-010		SPEAKER W 140<Y,YST>
6	86-NSR-604-010		SPEAKER TW 60 H
7	83-096-614-010		SPEAKER CORD
8	82-NSE-610-010		CERAMIC

SX-NAV80 / NAV800 / NM820<80YJBNC, 80YL, 80YBNC, 800YUBNC, 80YST, 800YUBNA, 820YJTNL, 820YTNL, 80YJ7, 80YBN, 80YJBNCC, 80YABNT, 80YABNM, 80B, 820YJBNL, 820B>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NSS-009-010	-	PANEL FR 80 R<EXCEPT YST,820YJTNL,820YTNL,820YJBNL,820B>
1	86-NSS-011-010		PANEL FR ST 80 R<YST>
2	86-NSS-010-010	-	PANEL FR 80 L<EXCEPT YST,820YJTNL,820YTNL,820YJBNL,820B>
2	86-NSS-012-010		PANEL FR ST 80 L<YST>
3	86-NSR-005-010	-	GRILL FRAME ASSY R<EXCEPT 820YJBNL,820B>
4	86-NSR-006-010	-	GRILL FRAME ASSY L<EXCEPT 820YJBNL,820B>
5	86-NSR-606-010		SPEAKER W 140<YBNC,800YUBNC,YST,800YUBNA>
5	86-NSS-602-010		SPEAKER W 140 H<YJBNC,YL,YJ7,YBN,YJBNCC,YABNT,YABNM>
5	86-NSM-602-010	-	SPEAKER W 160<820YJTNL,820YTNL,820YJBNL,820B>
6	86-NSM-604-010	-	SPEAKER TW 25<820YJTNL,820YTNL,820YJBNL,820B>
6	86-NSR-604-010		SPEAKER TW 60<EXCEPT 820YJTNL,820YTNL,820YJBNL,820B,80B>
7	82-NSE-610-010	-	CERAMIC<EXCEPT 820YJTNL,820YTNL,820YJBNL,820B>
8	83-096-614-010	-	SPEAKER CORD<EXCEPT 820YJTNL,820YTNL,820YJBNL,820B>
9	86-NSG-004-010	-	GRILL FRAME ASSY<820YJTNL,820YTNL,820YJBNL,820B>

SX-CR423<YJ, Y, YST>

NOTE : This SX-CR423 speaker contains SX-C400(center speaker) and SX-R230(rear speaker).
Refer to page 8 and 10 when servicing.

SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-NSX-001-010		PANEL FR(R230)<YJ,Y>
1	85-NSX-009-010		PANEL FR(R230)<YST>
2	85-NSX-002-010		PANEL REAR(R230)<YJ,Y>
2	85-NSX-010-010		PANEL REAR(R230)<YST>
3	85-NSX-005-010		GRILL FRAME ASSY(R230)
4	85-NSX-601-010		SPEAKER(R230)
5	81-VSA-010-010		SPEAKER CORD(R230)
6	85-NSY-001-010		PANEL FR(C400)<YJ,Y>
6	85-NSY-011-010		PANEL FR ST(C400)<YST>
7	85-NSY-002-010		PANEL REAR(C400)<YJ,Y>
7	85-NSY-012-010		PANEL REAR ST(C400)<YST>
8	85-NSY-010-010		GRILL FRAME ASSY(C400)
9	85-NSY-602-010		SPEAKER(C400)
10	83-NSM-010-010		SPEAKER CORD(C400)

SX-R230<YU>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-NSX-001-010		PANEL FR
2	85-NSX-002-010		PANEL REAR
3	81-VSA-010-010		SPEAKER CORD
4	85-NSX-005-010		GRILL FRAME ASSY
5	85-NSX-601-010		SPEAKER
6	85-NSX-901-010		IB YU(ESF)

SX-R240<Y, YJ>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-NSV-001-010		PANEL FR
2	85-NSX-005-010		GRILL FRAME ASSY
3	85-NSL-601-010		SPEAKER
4	81-VSA-010-010		SPEAKER CORD

SX-SR250 / R260<Y, YJ, YL, 260YU>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	83-NSX-011-010		PANEL FR R260<260YU>
2	83-NSX-004-010		GRILL FRAME ASSY
3	83-VS2-601-010		SPEAKER<EXCEPT 260YU>
3	83-NSX-601-010		SPEAKER<260YU>
4	81-VSA-010-010		SPEAKER CORD
5	83-NSX-008-010		PANEL TW ASSY
6	83-NSX-901-010		IB Y<EXCEPT 260YU>
6	83-NSX-902-010		IB YU(260)<260YU>

SX-SLM6<YT, YJ>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-CP2-003-010		GRILL FRAME ASSY
2	86-CP2-602-010		SPEAKER W
3	86-CP2-604-010		SPEAKER T

SX-SL300<B, W, D, G>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-CL7-112-010		PANEL FR<B,D>
1	86-CL7-116-010		PANEL FR W<W>
1	86-CL7-220-010		PANEL FR G<G>
2	86-CL7-113-010		GRILL FRAME
3	86-CL7-118-010		NET<B,D,G>
3	86-CL7-117-010		NET W<W>
4	86-CL7-119-010		SPEAKER
5	86-CL7-231-010		SPEAKER CODE
6	86-NS5-012-010		BADGE 35
7	86-CL7-232-010		CERAMIC

SX-SL600 / SLAP1MK3<Y, YJ, YL, YG, AP1MK3Y>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-CP6-001-010		PANEL FR R<EXCEPT YG,YL>
1	86-CP6-003-010		PANEL FR R G<YG>
1	86-CP6-005-010		PANEL FR R L<YL>
2	86-CP6-002-010		PANEL FR L<EXCEPT YG,YL>
2	86-CP6-004-010		PANEL FR L G<YG>
2	86-CP6-006-010		PANEL FR L L<YL>
3	86-CP6-602-010		SPEAKER WOOFER
4	86-CP6-603-010		SPEAKER TWEETER

SX-SL800<Y, YJ>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-CP5-001-010		PANEL FR R
2	86-CP5-002-010		PANEL FR L
3	86-CP5-005-010		GRILL FRAME ASSY R
4	86-CP5-006-010		GRILL FRAME ASSY L
5	86-CP5-604-010		SPEAKER MID
6	86-CP5-602-010		SPEAKER W
7	85-CP5-604-010		SPEAKER TW
8	83-096-614-010		SPEAKER CORD
9	85-CP5-611-010		SPEAKER CORD Y/B

SX-C300<Y, YJ, YU>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	83-NSM-007-010		GRILL FRAME ASSY
2	83-NSM-602-010		SPEAKER
3	83-NSM-010-010		SPEAKER CORD
4	83-NSM-901-010		IB Y<YJ,Y>
4	83-NSM-902-010		IB YU<YU>

SX-C400<YU>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-NSY-001-010		PANEL FR
2	85-NSY-002-010		PANEL REAR
3	85-NSY-010-010		GRILL FRAME ASSY
4	85-NSY-602-010		SPEAKER
6	83-NSM-010-010		SPEAKER CORD
7	85-NSY-901-010		IB YU(ESF)-400

SX-R210<Y, YJ,YU, YHS>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	83-VS3-001-010		CABI FRONT
2	83-VS3-004-010		GRILL FRAME ASSY
3	83-VS3-601-010		SPEAKER
4	81-VSA-010-010		SPEAKER CORD
5	81-VSA-009-010		CORD BUSH
6	87-351-099-010		SCREW VT+3-15
7	87-342-096-010		SCREW VT+3-10
8	87-302-124-010		SW+3.1-25
9	83-VS3-904-010		IB HS<YHS>
9	83-VS3-902-010		IB U<YU>
9	83-VS3-901-010		IB,Y<EXCEPT YU,YHS>

SX-R220 / SR220<Y, YJ, YJ1, YL, YL1, YU, SR220YU>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	83-VS3-004-010	-	GRILL FRAME ASSY
2	85-NSL-601-010	-	SPEAKER
3	83-VS3-901-110	-	IB Y<Y,YJ,YL>
3	83-VS3-902-110	-	IB U<YU>
3	85-NSL-902-010	-	IB Y<YJ1,YL1>
3	85-NSL-903-010	-	IB U<SR220YU>

SX-Z240 / Z24<Y, YL, YBNY1, YBNC, Z24YUBNC, Z24YUBNA>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-MSU-001-010		PANEL FR<EXCEPT YBNY1,Z24YUBNA>
2	86-MSU-002-010		GRILL FRAME ASSY<EXCEPT YBNY1,Z24YUBNA>
2	86-MSU-011-010		GRILL FRAME ASSY<Z24YUBNA>
2	85-MS5-017-010		GRILL FRAME ASSY E<YBNY1>
3	85-MS5-603-010		SPEAKER W<EXCEPT YBNY1>
3	85-MS5-611-010		SPEAKER W<YBNY1>
4	85-MS5-613-010		SPEAKER TW<YBNY1>
4	85-MS5-605-010		SPEAKER TW<EXCEPT YBNY1>
5	85-MS5-607-010		CERAMIC<EXCEPT YBNY1,Z24YUBNA>

SX-Z260 / Z26<Y, Z26YU>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-MSR-003-010		PANEL FR R<Z26YU>
2	86-MSR-004-010		PANEL FR L<Z26YU>
3	86-MSN-004-010		GRILL FRAME ASSY<Z26YU>
3	86-MSR-010-010		GRILL FRAME Y1 ASSY<Y>
4	86-MSM-601-010		SPEAKER W<Z26YU>
4	86-VSS-601-010		SPEAKER W<Y>
5	84-NS6-604-010		SPEAKER TW<Z26YU>
5	86-VSR-603-010		SPEAKER TW<Y>
6	86-VSR-605-010		CERAMIC<Y>

SX-Z270 / Z27<YBNL, YBNY1, Z27YU>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-MSN-001-010		PANEL FR R<EXCEPT YBNY1>
2	86-MSN-002-010		PANEL FR L<EXCEPT YBNY1>
3	86-MSP-001-010		PANEL TW R<EXCEPT YBNY1>
4	86-MSP-002-010		PANEL TW L<EXCEPT YBNY1>
5	86-MSR-601-010		SPEAKER W<YBNY1>
5	86-VS2-601-010		SPEAKER W<EXCEPT YBNY1>
6	84-VS3-603-010		SPEAKER TW<EXCEPT YBNY1>
6	86-MSR-603-010		SPEAKER TW<YBNY1>
7	86-MSR-604-010		CERAMIC<YBNY1>
8	86-MSU-004-010		GRILL FRAME ASSY<EXCEPT YBNY1>
8	86-MSP-010-010		GRILL FRAME ASSY<YBNY1>

SX-Z280<Y, YJ>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-MSN-001-010		PANEL FR R<EXCEPT Y>
2	86-MSN-002-010		PANEL FR L<EXCEPT Y>
3	86-MSN-004-010		GRILL FRAME ASSY<EXCEPT Y>
3	86-MSP-010-010		GRILL FRAME ASSY<Y>
4	86-VS2-601-010		SPEAKER W<EXCEPT Y>
4	86-VSP-601-010		SPEAKER W 160<Y>
5	86-VSR-603-010		SPEAKER T 60<Y>
5	84-VS3-603-010		SPEAKER TW<EXCEPT Y>
6	86-VSR-605-010		CERAMIC<Y>

SX-Z290<YJ, YL, YJ7>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-MSN-001-010		PANEL FR R<EXCEPT YJ7>
1	86-MSN-013-010		PANEL FR ST R<YJ7>
2	86-MSN-002-010		PANEL FR L<EXCEPT YJ7>
2	86-MSN-014-010		PANEL FR ST L<YJ7>
3	86-MSN-003-010		PANEL BA
4	86-MSN-004-010		GRILL FRAME ASSY
5	86-MSP-602-010		SPEAKER W YJ<EXCEPT YL>
5	86-MSP-601-010		SPEAKER W YL<YL>
6	86-NS6-604-010		SPEAKER TW

SX-FZ2600<Y, YJ, YL, YJST>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-MS5-001-010		PANEL FR<EXCEPT YJST>
1	86-MS5-012-010		PANEL FR ST<YJST>
2	86-MS5-019-010		HLDR SQ ASSY
3	86-MS5-017-010		GRILL FRAME ASSY
4	86-MS5-603-010		SPEAKER W YB<EXCEPT YL>
4	86-MS5-609-010		SPEAKER W YL<YL>
5	86-MS5-605-010		SPEAKER TW
6	86-MS5-607-010		SPEAKER
7	85-MS3-611-010		SPEAKER CORD ASSY
8	85-MS3-610-010		SPEAKER CORD ASSY Y/B

SX-FZ2700<Y, YJ, YL, YJST>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-VS2-001-010		PANEL FR<EXCEPT YJST>
2	86-VS2-002-010		PANEL BA
3	86-VS2-008-010		GRILL FRAME ASSY
4	86-VS2-603-010		SPEAKER W<EXCEPT Y>
4	86-VS2-605-010		SPEAKER W<Y>
5	86-NS5-608-010		SPEAKER TW
6	86-NS5-610-010		SPEAKER

SX-AZ2800<Y, YJ, YL, YJ7, YJST, YJ7ST>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-MS3-001-010		PANEL FR R<EXCEPT YJST,YJ7ST>
1	86-MS3-023-010		PANEL FR ST R<YJST,YJ7ST>
2	86-MS3-002-010		PANEL FR L<EXCEPT YJST,YJ7ST>
2	86-MS3-024-010		PANEL FR ST L<YJST,YJ7ST>
3	86-MS3-025-010		GRILL FRAME ASSY R
4	86-MS3-026-010		GRILL FRAME ASSY L
5	86-MS3-011-010		PANEL TW R
6	86-MS3-012-010		PANEL TW L
6	86-MS3-601-010		SPEAKER W
7	86-NS4-604-010		SPEAKER MID
8	86-NS4-606-010		SPEAKER
9	86-NS4-608-010		SPEAKER TW
10	85-NS6-611-010		SPEAKER CORD Y/B
11	85-NS5-613-010		SPEAKER CORD ASSY

SX-AZ3450<Y>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-MS3-025-010		GRILL FRAME ASSY R
2	86-MS3-026-010		GRILL FRAME ASSY L
3	86-MS3-001-010		PANEL FR R
4	86-MS3-002-010		PANEL FR L
5	86-NS3-601-010		SPEAKER W
6	86-NS4-604-010		SPEAKER MID
7	86-VS4-606-010		SPEAKER
8	86-NS4-608-010		SPEAKER TW

SX-Z4400<YBNY, YBNY1, YJBNL>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-VS4-011-010		GRILL FRAME ASSY<YBNY,YBNY1>
1	85-VS4-006-010		GRILL FRAME ASSY<YJBNL>
2	85-VS4-001-010		PANEL FR R<YJBNL>
3	85-VS4-004-010		PANEL FR L<YJBNL>
4	85-VS4-601-010		SPEAKER W<YBNY1>
4	86-VSR-602-010		SPEAKER W<YJBNL,YBNY>
4	86-VSR-602-010		SPEAKER W<YBNY>
5	85-VS4-603-010		SPEAKER T<YBNY1>
5	86-VSR-603-010		SPEAKER TW<YBNY>
5	84-VS3-603-010		SPEAKER TW<YJBNL>
6	83-096-614-010		SPEAKER CORD<YJBNL>
7	86-VSR-605-010		CERAMIC<YBNY>
7	85-VS4-605-010		CERAMIC<YBNY1>

SX-Z7400<Y>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-VSM-601-010		SPEAKER W
2	86-MSR-603-010		SPEAKER TW
3	86-MSR-604-010		CERAMIC
4	86-MSP-010-010		GRILLE FRAM ASSY

SX-Z9400<Y, YJ, YL>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-VS1-002-010		PANEL W
2	86-VS1-003-010		PANEL TW ASSY
3	86-VS1-009-010		GRILL FRAME ASSY
4	86-VS1-602-010		SPEAKER WOOFER
5	84-VS3-603-010		SPEAKER TWEETER
6	83-149-611-010		TERMINAL
7	81-672-612-010		SPEAKER CORD

SX-NV200 / NV2000<Y, YJ, YL, NV2000YU>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-CPC-003-010		GRILL FRAME ASSY R
2	86-CPC-006-010		GRILL FRAME ASSY L
3	86-CPC-605-010		SPEAKER

SX-NV210 / NV2100<YBNC, YBNC1, YJ, YL, NV2100YUBNC, NV2100YUBNC1>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NSZ-001-010		PANEL,FR<EXCEPT YBNC>
2	86-NSZ-601-010		SPEAKER,120<NV2100YUBNC>
2	86-NSZ-603-010		SPEAKER,120H<YBNC1>
2	86-NSZ-605-010		SPEAKER,120D<NV2100YUBNC1>
2	86-NSZ-607-010		SPEAKER,120DH<YJ,YL,YBNC>
3	86-NSZ-602-010		SPEAKER,CERA 14<EXCEPT YBNC>
4	86-NSZ-003-010		NET<EXCEPT YBNC>
5	86-NSZ-610-010		CODE,SP

SX-NAVH8 / NAVH80<Y, YJ, YT, TN, T1, T2, 80YU>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NSM-001-010		PANEL FR
2	86-NSM-004-010		GRILL FRAME ASSY
3	83-096-614-010		SPEAKER CORD
4	86-NS2-602-010		SPEAKER W 140
5	83-MS2-603-010		SPEAKER TW 60

SX-NAVH9 / NAVH90 / NM9<Y, YJ, YL, YT, YJ7, 90YU, NM9YT>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NSM-001-010		PANEL FR<EXCEPT NM9YT>
2	86-NSM-004-010		GRILL FRAME ASSY
3	83-096-614-010		SPEAKER CORD
4	86-NS2-602-010		SPEAKER W 140<EXCEPT NM9YT>
4	86-NSM-602-010		SPEAKER W 160<NM9YT>
5	86-NSM-604-010		SPEAKER TW 25<NM9YT>
5	83-MS2-603-010		SPEAKER TW 60<EXCEPT NM9YT>
6	86-NSM-610-010		TERMINAL ASSY<EXCEPT NM9YT>
6	85-NSG-610-010		TERMINAL ASSY<NM9YT>

SX-ANH9 / ANH90<Y, YJ, YL, YJ7, ANH90YU>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NS1-001-010		PANEL FR R
2	86-NS1-002-010		PANEL FR L
3	86-NS1-010-010		GRILL FRAME ASSY R
4	86-NS1-011-010		GRILL FRAME ASSY L
5	86-NS1-602-010		SPEAKER W 140H
6	86-NS4-604-010		SPEAKER M 80
7	86-NS4-606-010		SPEAKER S 80
8	86-NS4-608-010		SPEAKER T 50

SX-FNH8<YJ, YL>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NS2-001-010		PANEL FR
2	86-NS2-016-010		PANEL TW ASSY
3	86-NS2-006-010		GRILL FRAME ASSY
4	86-NS1-602-010		SPEAKER W 140 H
5	83-NS5-608-010		SPEAKER TW
6	83-NS5-610-010		SPEAKER

SX-N340 / N410G / N3150 / N3200<340YB, 340YBNC, 340YJBNC, 340YJABN, 410GB, 3150YU, 3200YU>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-NS7-002-010		PANEL FR L<3200YU,340YBNC,340YJABN,3150YU>
1	82-NS7-007-010		PANEL FR L H<340YJBNC,340YBNC>
1	82-NS7-017-010	-	PANEL FR L 410<410GB>
2	82-NS7-003-010		PANEL FR R<3200YU,340YBNC,340YJABN,3150YU>
2	82-NS7-008-010		PANEL FR R H<340YJBNC,340YBNC>
2	82-NS7-018-010	-	PANEL FR R 410<410GB>
3	82-NS7-014-010	-	GRILL FRAME ASSY L
4	82-NS7-015-010	-	GRILL FRAME ASSY R
5	83-NS2-602-010	-	SPEAKER WOOFER
6	83-NS2-604-010	-	SPEAKER TWEETER
7	81-MSE-610-010	-	CERAMIC
8	83-096-614-010	-	SPEAKER CORD

SX-FNF7 / FNF77<Y, YJ, YL, YJ7, YJST, FNF77YU>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NSA-001-010		PANEL FR <EXCEPT YJST>
1	86-NSA-013-010		PANEL FR ST<YJST>
2	86-NSA-003-010		GRILL FRAME ASSY
3	86-NSA-007-010		PANEL,TW
4	86-NSA-602-010		SPEAKER,W 160<EXCEPT Y,YU>
4	86-NSA-608-010		SPERAKER,W 160H<Y,YU>
5	86-NS5-604-010		SPEAKER,T 80<EXCEPT Y,YU>
5	86-NSA-610-010		SPEAKER,T 60H<Y,YU>
6	86-NS5-606-010		SPEAKER,80
7	86-NSA-611-010		SPEAKER CODE

SX-Z2890<YJ>
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-MSD-002-010		GRILL,ASSY
2	85-MSD-005-010		PANEL,W
3	85-MSD-006-010		PANEL,M
4	85-MSD-007-010		PANEL,T ASSY
5	85-MSD-601-010		SPEAKER,WOOFER
6	83-NS2-603-010		SPERAKER,TWEETER
7	81-672-612-010		SPEAKER CODE

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER
	SERGE SUPPRESSOR
	CAP, CERA

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL
	ARM, SHAFT
	GUIDE, SHAFT
	STRAP
	S-SCREW
	HINGE
	S-SCREW
	SCREW, SERPART

サービス技術ニュース	
番号	連絡内容
G－　－	
G－　－	
G－　－	

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